Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.11.94 Test oil : ISO 4113

Combination No. : 0 402 046 865A

Injection pump

Pump designation : PES6P120A320LS3321

: -1

EP type number : 0 412 026 766

Governor

Governer design. : RQ275...950PA1085-1

Governer no. : 0 421 801 691

Cust. part No. : 645 673

Customer—spec. information Customer : RABA

Motor : SIEHE BEMERKUNG

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

. -- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm : 14.05 Tolerance mm : + 0.05

	+ Rated speed rpm : 460
Del. quantity	+ guide sleeve
cm3/1000 strokes : 197.0	+ travel mm : 6.00 + Tolerance mm : + 0.10
Tolerance	T Toterance min : 0.10
cm3/1000 strokes : +- 1.0	Rated speed rpm : 1190
	+ guide sleeve
Check tolerance	+ travel mm : 11.50
cm3/1000s. : +- 4.0	Tolerance mm : +- 0.50
Spreed	
Tolerance	→ GUIDE SLEEVE POSITION
cm3/1000 strokes : 5.0	+
Charle to Language	- Rated speed rpm : 500
Check tolerance cm3/1000s. : 9.0	Rack travel in mm: 20.00
· // // // // // // // // // // // // //	+ Tolerance mm : +- 0.80
Rated speed rpm : 275	+
0.40	
Rack travel in mm : 9.10 Tolerance mm : +- 0.30	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity	Rated speed rpm : 600
cm3/1000 strokes : 22.0	+ Aneroid pressure
Tolerance	+ hPa : 900
cm3/1000 strokes : +- 3.0	+ Del. quantity
Check tolerance cm3/1000s. : +- 6.0	+ cm3/1000 strokes : 197.0 + Tolerance
Spreed	+ cm3/1000 strokes : + 1.0
Tolerance	- Check tolerance
cm3/1000 strokes : 8.0	+ cm3/1000s. : + 4.0
Check tolerance	+ Spreed
cm3/1000s. : 12.0	+ Tolerance + cm3/1000 strokes : 5.0
	+ Check tolerance
(B) SETTING OF INJECTION PUMP	- cm3/1000s. : 9.0
WITH GOVERNOR	+
	†
GUIDE SLEEVE TRAVEL	CONTROL LEVER
SOLDE SEELE WATER	+
Rated speed rpm : 275	+ control lever
guide sleeve	+ position degree : 36.0
travel mm : 2.26 Tolerance mm : +- 0.10	tolerance degree : +- 4.0
Toter ance man	T control lever
Rated speed rpm : 1020	+ position degree : 98.0
guide sleeve	+ tolerance degree : + 4.0
travel mm : 6.35	† PATED SPEED
Tolerance mm : +- 0.10	RATED SPEED
Rated speed rpm : 950	rack travel mm : 13.05
guide sleeve	+ Rated speed rpm : 1012
travel mm : 6.00	† Tolerance 1/min : +- 5
Tolerance mm : +- 0.10	rack travel mm : 4.00
Rated speed rpm : 369	+ Rated speed rpm : 1100
guide sleeve	+ Tolerance 1/min : + 15
travel mm : 4.64	+
Tolerance mm : +- 0.10	+ rack travel mm : 0.50
	+ Tolerance mm : +- 0.50

Rated speed rpm	: 1200	Pressure hPa : 590 rack travel mm : 13.50 Tolerance mm : + 0.05
LOW IDLE		
control lever position degree tolerance degree		FUEL DELIVERY CHARACTERISTICS Ameroid pressure
control lever position degree tolerance degree	: 11.0 : +- 4.0	hPa : 900 Rated speed rpm : 950 Del. quantity cm3/1000 strokes : 198.0
Testing:	· · · · · · · · · · · · · · · · · · ·	Tolerance cm3/1000 strokes : +- 3.0
Rated speed rpm rack travel mm Tolerance mm	: 275 - 5.80 0.10	Check tolerance cm3/1000s. : +- 6.0 Aneroid pressure
Rated speed rpm Tolerance 1/min	: 355 -	hPa : - Rated speed rpm : 500 Del. quantity
Rated speed rpm	-	cm3/1000 strokes : 116.0 Tolerance cm3/1000 strokes : +- 2.0
CRT mm min.	: > 8.00 - 	Check tolerance cm3/1000s. : + 4.0
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 14.05 -	BREAKAWAY Rack travel in mm : 13.05 Rated speed rpm : 1012 Tolerance 1/min : +- 5
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING	- 1	STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 14.05 : +- 0.05	Del. quantity cm3/1000 strokes : 154.0 Tolerance cm3/1000 strokes : - 20.0 Check tolerance
MEASUREMENT	7	cm3/1000s. : +- 24.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.80 : + 0.20	LOW IDLE
Rated speed rpm	: 500	- Rated speed rpm : 275 - rack travel mm : 9.10
Pressure hPa rack travel mm Tolerance mm	: 380 : 12.20 : +- 0.20	Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 22.0

Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.01.95 Test oil : ISO 4113

Combination No. : 0 402 046 865B

Injection pump

Pump designation : PES6P120A320LS3321

: -1

EP type number : 0 412 026 776

Governor

Governer design. : RQ275...1100PA1085

: -1

Governer no. : 0 421 801 761

Cust. part No. :

Customer-spec. information Customer : RABA

Motor : SIEHE BEMERKUNG

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 12.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 14.00

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 198.0	guide sleeve travel mm : 6.00 Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1240 guide sleeve
Check tolerance cm3/1000s. : + 4.0	travel mm : 11.50 Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance	Rated speed rpm : 500
cm3/1000s. : 9.0	Rack travel in mm : 20.00 Tolerance mm : +- 0.80
Rated speed rpm : 275	
Rack travel in mm: 9.50 + Tolerance mm: + 0.30 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 22.0	Rated speed rpm : 600 Aneroid pressure
Tolerance cm3/1000 strokes : +- 3.0	hPa : 900 Del. quantity
Check tolerance cm3/1000s. : +- 6.0	cm3/1000 strokes : 198.0 Tolerance
Spreed +	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : 8.0 + Check tolerance +	cm3/1000s. : +- 4.0 Spreed
cm3/1000s. : 12.0 +	Tolerance cm3/1000 strokes : 5.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 275 + guide sleeve	control lever position degree : 47.0
travel mm : 0.76 + Tolerance mm : + 0.10	tolerance degree : +- 4.0
Rated speed rpm : 1116 + guide sleeve +	control lever position degree : 109.0 tolerance degree : +- 4.0
travel mm : 7.85 Tolerance mm : + 0.10	RATED SPEED
Rated speed rpm : 1100 + guide sleeve +	rack travel mm : 13.00 Rated speed rpm : 1150
travel mm : 6.00 + Tolerance mm : + 0.10	Tolerance 1/min : +- 5
Rated speed rpm : 387 + guide sleeve +	rack travel mm : 4.00 Rated speed rpm : 1220 Tolerance 1/min : +- 15
travel mm : 3.58 + Tolerance mm : +- 0.10	rack travel mm : 0.50
Rated speed rpm : 500	Tolerance mm : +- 0.50 Rated speed rpm : 1350
Tured Speed (pill 1 300 T	The second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in the second operation is a second operation in the second operation in

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LOW IDLE	
control lever position degree tolerance degree	: 72.0 : +- 4.0
control lever position degree tolerance degree	: 10.0 : +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 6.50 : +- 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 375 : + 20
Rated speed rpm	: 175
CRT mm min.	: > 8.50
Reted speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE	: 1100 : 14.00 : + 0.10
COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 14.10 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.85 : ← 0.20
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 120 : 12.10 : + 0.15

Pressure hPa rack travel min Tolerance mm	: 340 : 13.50 : +- 0.05
FUEL DELIVERY CHA	RACTERISTICS : 900 : 950
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 3.0 : +- 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 115.0 : + 2.0 : + 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 13.00 : 1150 : + 5
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 275 : 9.50 : + 0.30 : 22.0

Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 402 076 748

Injection pump

Pump designation : PES6P11DA72DRS3305

: -1

EP type number : 0 412 016 742

Governor

Governer design. : RSV300...1100P1A555

Governer no. : 0 421 833 379

Cust. part No. : 9271058

Customer-spec. information
Customer : LIEBHERR
Motor : D 926 TI
Power KW : 210.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 049

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 130 Toterance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 207.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.20
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240 : -300

Tolerance : +- 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.25
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 165.0

Tolerance	
cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : +- 3.5	control lever position degree : 108.0
Spreed Tolerance cm3/1000 strokes : 4.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 7.5	rack travel mm : 10.25 Rated speed rpm : 1040
Rated speed rpm : 400	Tolerance 1/min : +- 5
Rack travel in mm: 4.40 Tolerance mm: + 0.10 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1095 Tolerance 1/min : +- 15
cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1260
Check tolerance + 5.5 + 5.5 Spreed + Tolerance + 5.5	rack travel mm : 4.00 Rated speed rpm : 1100
cm3/1000 strokes : 4.5 Check tolerance	
cm3/1000s. : 7.5	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 78.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 400 rack travel mm : 3.90
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 400 rack travel mm : 4.40 Tolerance mm : +- 0.10
Rated speed rpm : 1000 Aneroid pressure hPa : 1100 Del. quantity	rack travel mm : 2.00 Rated speed rpm : 450 Tolerance 1/min : + 30
cm3/1000 strokes : 165.0 + Tolerance cm3/1000 strokes : +- 1.0 + 1.0	TORQUE CONTROL
Check tolerance cm3/1000s. : + 3.5	Rated speed rpm : 1000 rack travel mm : 11.25 Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : 4.0 check tolerance cm3/1000s. : 7.5	Rated speed rpm : 600 rack travel mm : 11.25 Tolerance mm : +- 0.10
cm3/1000s. : 7.5 +	Tolerance mm : +- 0.10

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST	: 11.25 : + 0.10 : 450 : 12.20 : + 0.10 : 400 : 12.20 : + 0.15	Del. quantity cm3/1000 strokes : 152.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.5 BREAKAWAY Rack travel in mm : 10.25 Rated speed rpm : 1040 Tolerance 1/min : + 5
SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 11.25 : + 0.05 : - 550 : 9.75 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 145.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 650 : 11.00 : +- 0.05 : 550	Rated speed rpm : 400 rack travel mm : 4.40 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 36.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.5 Spreed
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm	: 1100 : 600 : 186.0 : \(\to \) 2.0 : \(\to \) 5.0	Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.5 End of test specification sheet

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.09.95 Edition Test oil : ISO 4113

Combination No. : 0 402 076 750

Injection pump

Pump designation : PES6P120A720RS3311 EP type number : 0 412 026 760

Governor

Governer design. : RSV400...1050P0A602

Governer no. 2 0 421 833 483

Cust, part No. :

Customer-spec. information

Customer : FNH-GEOTECH

: P396 Motor Power KW 179.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Tolerance bar : + 0.1

Overflow quantity

min. L/h : 100 Tolerance l/h: + 20.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05 Check

; +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.45 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 158.0

Tolerance cm3/1000 strokes : +- 1.0	+ Tolerance + cm3/1000 strokes : 5.0 + Check tolerance
Check tolerance cm3/1000s. : + 4.0	inex toterance : 9.0
Spreed Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. 9.0	control lever position degree : 96.0 tolerance degree : +- 4.0
Rated speed rpm : 400	RATED SPEED
Rack travel in mm : 5.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 26.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1320
Tolerance cm3/1000 strokes : +- 3.0	rack travel mm : 4.00 Rated speed rpm : 1160
Check tolerance cm3/1000S. : +- 6.0 Spreed	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : 8.0	Rated speed rpm : 1093 rack travel mm : 10.45
Check tolerance cm3/1000s. : 12.0	+ Rated speed rpm : 1153 + Tolerance 1/min : + 5
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 4.00 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1320
GUIDE SLEEVE POSITION	Rated speed rpm : 1094
Rated speed rpm : 800	+
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Rated speed rpm : 1154 Tolerance 1/min : + 5 **ack travel mm : 4.00
governor spring pre-tension click setting x : 4.25	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1096
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 1095 + rack travel mm : 10.45
Rated speed rpm : 1050 Aneroid pressure hPa : 1500 Del. quantity	Rated speed rpm : 1155 Tolerance 1/min : + 5 rack travel mm : 4.00
cm3/1000 strokes : 158.0 Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 0.85 Tolerance mm : + 0.55
Check tolerance cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 1096 rack travel mm : 10.45
-p	Rated speed rpm : 1156

Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.85	Rated speed rpm : 935 rack travel mm : 12.00 Tolerance mm : +- 0.10
Tolerance mm : +- 0.55 Rated speed rpm : 1097	Rated speed rpm : 700 rack travel mm : 12.50 Tolerance mm : + 0.10
rack travel mm : 10.45	
Rated speed rpm : 1157 Tolerance 1/min : + 5 rack travel mm : 4.00	ANEROID/ALTITUDE COMPENSATOR TEST
rack travel mm : 0.85 Tolerance mm : +- 0.55	SETTING Rated speed rpm : 500
Rated speed rpm : 1098 rack travel mm : 10.45	Pressure hPa : 1500 rack travel mm : 12.50 Tolerance mm : +- 0.10
Rated speed rpm : 1158 Tolerance 1/min : + 5 rack travel mm : 4.00	MEASUREMENT
rack travel mm : 0.85 Tolerance mm : +- 0.55	Pressure hPa : - Rated speed rpm : 500 rack travel mm : 9.40 Tolerance mm : +- 0.10
LOW IDLE	Rated speed rpm : 500 Pressure hPa : 950
control lever position degree : 73.0 tolerance degree : + 4.0 Setting point w/out bumper spring	rack travel mm : 12.25 Tolerance mm : +- 0.05
Rated speed rpm : 400 - rack travel mm : 4.70 -	FUEL DELIVERY CHARACTERISTICS
Testing:	Aneroid pressure hPa: 1500 Rated speed rpm: 750
Rated speed rpm : 400 - rack travel mm : 5.20 - Tolerance mm : +- 0.10 -	Del. quantity cm3/1000 strokes : 194.0 Tolerance cm3/1000 strokes : +- 3.0
rack travel mm : 2.00 Rated speed rpm : 530 Tolerance 1/min : +- 20	Check tolerance : +- 6.0
TORQUE CONTROL	Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm : 1050	Del. quantity cm3/1000 strokes : 127.0
rack travel mm : 11.45 Tolerance mm : +- 0.05	Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance
Rated speed rpm : 750 - rack travel mm : 12.50 - Tolerance mm : +- 0.10 -	- cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 195.0 Tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s. : + 19.0

LOW IDLE

400 Rated speed rpm 5.20 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 26.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.06.95 : ISO 4113 Test oil

Combination No. : 0 402 076 768

Injection pump

Pump designation : PES6P120A720RS3322

EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A567

: -2

Governer no. : 0 421 833 443

Cust. part No. :

Customer-spec. information

Customer : FNH-GEOTECH Motor : 7,5l - DI : 190.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 : **←** 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order : 4

Phasing : 0-60-120-180-240

: -300 : +- 0.30 Tolerance

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.45 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 153.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 5.0

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Spreed Talerance cm3/1000 strokes	: 5.0	+	ROL LEVER	
Check tolerance cm3/1000s.	: 9.0	+ posit	tion degree rance degree	
Rated speed rpm	: 650	RATE	SPEED	
Rack travel in mm Tolerance mm Del. quantity	: 4.80 : +- 0.20	+	d speed rpm MBLY GOVERNOR	
cm3/1000 strokes Tolerance	: 21.0	+	speed rpm	: 1263
cm3/1000 strokes Check tolerance	: 3.0		travel mm	
cm3/1000s. Spreed Tolerance	: +- 6.0	+ Toler	d speed rpm rance 1/min travel mm	: 1295 : +- 5 : 4.00
cm3/1000 strokes Check tolerance	: 8.0	+	travel mm	: 0.85
cm3/1000s.	: 12.0	•	rance mm 1 speed rpm	: +- 0.55 : 1500
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP		speed rpm travel mm	
GUIDE SLEEVE POSIT	ION	+ Toler	speed rpm rance 1/min travel mm	: 1296 : + 5 : 4.00
Rated speed rpm	: 800		travel mm	: 0.85 : +- 0.55
	: 0.50 : + 0.20		i speed rpm travel mm	
governor spring pre-tension click setting x	: 3.00	+ Toler	speed rpm vance 1/min travel mm	; +- 5
FULL LOAD DELIVERY			travel mm ance mm	: 0.85 : + 0.55
Aneroid pressure hPa	: 1200 : 1000		l speed rpm travel mm	: 1266 : 10.45
Tolerance	: 153.0 : +- 1.0	+ Toler	speed rpm ance 1/min travel mm	: 1298 : + 5 : 4.00
cm3/1000s. Spreed	: +- 5.0		travel mm ance mm	: 0.85 : + 0.55
Check tolerance	5.0		speed rpm travel mm	: 1267 : 10.45
cm3/1000s.	9.0		speed rpm ance 1/min	: 1299 : + 5

rack travel mm :	4.00		
rack travel mm : Tolerance mm : +	0.85	ANEROID/ALTITUDE COMPENSATOR TEST	
Rated speed rpm : rack travel mm :	1268 10.45	SETTING	
Rated speed rpm : Tolerance 1/min : +- rack travel mm :	4.00	Rated speed rpm : 500 Pressure hPa : 1000 rack travel mm : 11.90 Tolerance mm : + 0.10	
rack travel mm : Tolerance mm : +-	0.85	MEASUREMENT	
LOW IDLE		Pressure hPa : - Rated speed rpm : 500 rack travel mm : 7.90 Tolerance mm : +- 0.10	
control lever position degree : tolerance degree : +-	80.0	Rated speed rpm : 500 Pressure hPa : 595	
Setting point w/out bu	+	rack travel mm : 11.45 Tolerance mm : + 0.05	
Rated speed rpm : rack travel mm :	650 4.30	START CUT-OUT	
Testing:	1	Rated speed rpm : > 100	
rack travel mm :	4.80 0.10	Check speed 1/min :> 80	
rack travel mm : Rated speed rpm : Tolerance 1/min : +-	2.00 770 50	FUEL DELIVERY CHARACTERISTICS Aneroid pressure	
TORQUE CONTROL	+	hPa : 1000 Rated speed rpm : 900	
rack travel mm :	1200 11.45 0.05	Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : +- 3.0	
Rated speed rpm : rack travel mm : Tolerance mm : +-	900 11.80 0.10	Check tolerance cm3/1000s. : +- 6.0 Aneroid pressure	
Rated speed rpm : rack travel mm :	1100 11.60	hPa : - Rated speed rpm : 500 Del. quantity	
Rated speed rpm :	700	cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : +- 1.0	
rack travel mm : Tolerance mm :+-	11.90	Check tolerance cm3/1000s. : +- 4.0	

STARTING FUEL DELIVERY

Del. quantity cm3/1000 strokes : 215.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm 650 rack travel mm 4.80 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 21.0

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance cm3/1000s.

6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 06.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 076 787

Injection pump

Pump designation : PES6P120A720RS3340 EP type number : 0 412 026 773

Governor

Governer design. : RSV400...1050P0A602 Governer no. : 0 421 833 483

Cust. part No. :

Customer-spec. information

Customer : FNH-GEOTECH

Motor : EP040B Power KW : 176.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 100 Tolerance l/h: +- 20.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

tolerance *NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.25 Tolerance mm: + 0.05 Del. quantity cm3/1000 strokes: 158.0 Tolerance cm3/1000 strokes: + 1.0 Check tolerance cm3/1000s. : + 6.0	Del. quantity cm3/1000 strokes : 158.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Spreed Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	position degree : 94.0 RATED SPEED
Rated speed rpm : 400	
Rack travel in mm : 5.00 + Tolerance mm : + 0.20 + Del. quantity	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1320
cm3/1000 strokes : 26.0 + Tolerance cm3/1000 strokes : +- 3.0 +	rack travel mm : 4.00 Rated speed rpm : 1165
Check tolerance + 6.0 +	ASSEMBLY GOVERNOR SETTING
Spreed + Tolerance + Tolerance	Rated speed rpm : 1093 rack travel mm : 10.20
cm3/1000 strokes : 8.0 + Check tolerance + cm3/1000s. : 12.0 + Cm3/1000s.	Rated speed rpm : 1148 Tolerance 1/min : +- 5 rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1320
	Rated speed rpm : 1094 rack travel mm : 10.20
GUIDE SLEEVE POSITION +	
Rated speed rpm : 800	Rated speed rpm : 1149 Tolerance 1/min : +- 5
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	rack travel mm : 4.00
governor spring pre-tension	rack travel mm : 0.85 Tolerance mm : +- 0.55
click setting x : 4.25	Rated speed rpm : 1095 rack travel mm : 10.20
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1150 Tolerance 1/min : +- 5
Rated speed rpm : 1050	rack travel mm : 4.00
Aneroid pressure hPa : 1600	rack travel mm : 0.85 Tolerance mm : +- 0.55

Rated speed rpm rack travel mm	
Rated speed rpm Tolerance 1/min rack travel mm	: 1151 : + 5 : 4.00
rack travel mm Tolerance mm	: 0.85 : + 0.55
Rated speed rpm rack travel mm	: 1097 : 10.20
Rated speed rpm Tolerance 1/min rack travel mm	: +- 5
rack travel mm Tolerance mm	: 0.85 : +- 0.55
Rated speed rpm rack travel mm	: 1098 : 10.20
Rated speed rpm Tolerance 1/min rack travel mm	: 1153 : + 5 : 4.00
rack travel mm Tolerance mm	: 0.85 : + 0.55
LOW IDLE	
control lever position degree	: 73.0
Setting point w/c	
occoming point with	out bumper spring
Rated speed rpm rack travel mm	· · · · · · · ·
Rated speed rpm	: 400
Rated speed rpm rack travel mm	: 400
Rated speed rpm rack travel mm Testing: Rated speed rpm rack travel mm	: 400 : 4.50 : 400 : 5.00 : + 0.10 : 2.00 : 535
Rated speed rpm rack travel mm Testing: Rated speed rpm rack travel mm Tolerance mm rack travel mm Rated speed rpm	: 400 : 4.50 : 400 : 5.00 : + 0.10 : 2.00 : 535

Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.40 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.50 : + 0.15
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1600 : 12.50 : +- 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 8.10 : +- 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 980 : 11.40 : +- 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	
Tolerance cm3/1000 strokes	: +- 3.0

hPa	:	1600
Rated speed rpm	:	700
Del. quantity		
cm3/1000 strokes	:	196.0
Tolerance		
cm3/1000 strokes	; +	- 3.0
Check tolerance		
cm3/1000s.	; +	- 6.0
Aneroid pressure		
hPa	;	_
Rated speed rpm	:	500
Del. quantity		
cm3/1000 strokes	:	94.0
Tolerance		
cm3/1000 strokes	: +	- 1.0
Check tolerance		
cm3/1000s.		, .
	: +-	- 4.0
(1107) 100001	: +-	- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 150.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

400 Rated speed rpm 5.00 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 26.0 Tolerance 3.0 cm3/1000 strokes Check tolerance cm3/1000s. 6.0 Spreed Tolerance 8.0 cm3/1000 strokes Check tolerance 12.0 cm3/1000S.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.03.96 : ISO 4113 Test oil

Combination No. : 0 402 646 743

Injection pump

Pump designation : PE6P120A320LS7837-2

EP type number : 0 412 626 943

Governor

Governer design. : RQ300/1100PA1271 Governer no. : 0 421 801 803

Cust. part No. : 0270743102

Customer-spec. information Customer : MB-NFZ Motor : OM441 LA Power KW : 260.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. l/h : 120 Tolerance t/h : + 20.0

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance $^{\circ}NW$: + 0.50

Start of delivery mark

Barrel no. :

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 14.50

Rack travel in mm: 14.50 Tolerance mm : + 0.10
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 234.5	guide sleeve travel mm : 6.00 Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1350 guide sleeve
Check tolerance cm3/1000s. : +- 4.0	travel mm : 11.50 Tolerance mm : +- 0.50
Spreed Tolerance cm3/1000 strokes : 6.0	GUIDE SLEEVE POSITION
Check tolerance	Rated speed rpm : 650
cm3/1000s. : 9.0 +	Rack travel in mm : 20.00 Tolerance mm : +- 0.80
Rack travel in mm: 6.00 + Tolerance mm: +- 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity + cm3/1000 strokes : 19.0 +	Rated speed rpm : 600 Aneroid pressure
Tolerance cm3/1000 strokes : +- 3.0 +-	hPa : 850 Del. quantity
Check tolerance	cm3/1000 strokes : 234.5
cm3/1000s. : +- 6.0 +	Tolerance
Spreed +	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : 6.0	cm3/1000S. : +- 4.0
Check tolerance + cm3/1000s. : 10.0 +	Spreed
cm3/1000s. : 10.0	Tolerance cm3/1000 strokes : 6.0
(B) SETTING OF INJECTION PUMP	Check tolerance cm3/1000s. : 9.0
WITH GOVERNOR	cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300	control lever
guide sleeve + travel mm : 1.94 +	position degree : 100.0
travel mm : 1.94 + Tolerance mm : + 0.20 +	tolerance degree : +- 4.0
+	RATED SPEED
Rated speed rpm : 1152	rack travel mm : 14.60
guide sleeve + travel mm : 6.34 +	Rated speed rpm : 1140
Tolerance mm : + 0.15	Tolerance 1/min : +- 8
Rated speed rpm : 1100	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1265 Tolerance 1/min : +- 15
travel mm : 6.90 + Tolerance mm : + 0.10 +	
Rated speed rpm : 431	rack travel mm : 0.75 Tolerance mm : + 0.75
guide sleeve + travel mm : 4.71 +	Rated speed rpm : 1350
Tolerance mm : + 0.10	
Rated speed rpm : 570	LOW IDLE

control lever position degree tolerance degree	: 74.0 : +- 4.0	Check speed 1/min : > 80 Check speed 1/min : < 240	
Testing:		†	,
_	700	+ FUEL DELIVERY CHARACTERISTICS	
Rated speed rpm rack travel mm Tolerance mm	: 5.60 : + 0.10	Aneroid pressure hPa : 1500 Rated speed rpm : 1100	
rack travel mm	: 2.00	→ Del. quantity	
rack travel mm Rated speed rpm Tolerance 1/min	: +00 : +- 20	cm3/1000 strokes : 264.0 Tolerance	
Rated speed rpm	: 200	cm3/1000 strokes : +- 1.5 Check tolerance	
CRT mm min.	; > 9.00	cm3/1000s. : +- 4.5 + Spreed + Tolerance	
TORQUE CONTROL		cm3/1000 strokes : 8.0 Check tolerance	
Rated speed rpm	: 600	cm3/1000s. : 12.0	
rack travel mm Tolerance mm	: 14.50	Aneroid pressure + hPa : 1500 + Rated speed rpm : 700	
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 15.60	Del. quantity - cm3/1000 strokes : 262.0	
Tolerance mm	: +- 0.10	Tolerance cm3/1000 strokes : +- 3.0	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 15.60 : + 0.10	Aneroid pressure hPa : 1500 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Aneroid pressure	
TOTAL GIFTON THE		Aneroid pressure hPa : -	
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 500 Del. quantity	
		+ cm3/1000 strokes : 151.0 + Tolerance	
MEASUREMENT		+ cm3/1000 strokes : +- 1.0 + Check tolerance + cm3/1000s. : +- 4.0	
Pressure hPa rack travel mm Tolerance mm	: 200 : -4.00 : +- 0.05	+ cm3/1000s. : +- 4.0 	
		DICANARA	
Pressure hPa rack travel mm Tolerance mm	: 500 : -1.60 : + 0.15	Rack travel in mm: 14.60 Rated speed rpm: 1140	
Pressure hPa rack travel mm Tolerance mm	: 0.45	+ Tolerance 1/min : +- 8	
. Jeon di joe nan		STARTING FUEL DELIVERY	
START CUT-OUT		Rated speed rpm : 100 Del. quantity	
Rated speed rpm Rated speed rpm		cm3/1000 strokes : 250.0	

Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm 300 rack travel mm 6.00 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 6.0 cm3/1000 strokes : Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09.04.92 Edition Test oil : ISO 4113

Combination No. : 0 402 646 955

Injection pump

Pump designation : PE6P12OA32OLS7834-1 EP type number : 0 412 626 857

Governor

Governer design. : RQV350...1050PA866

: -13

Governer no. : 0 421 813 954

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA : 230.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Overflow quantity

110 min. L/h : 110 Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 2 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 5.55 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 20.50 Tolerance mm : +- 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 : + - 0.30Tolerance

Check

tolerance "NW : +- 0.50

Start of delivery mark

Barrel no. :

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 14.70

Rack travel in mm : 14.70 Tolerance mm : + 0.10
Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes : 223.0	Rated speed rpm : 1130 Rack travel in mm : 17.25
Tolerance cm3/1000 strokes : +- 1.0	Tolerance mm : +- 0.75
Check tolerance cm3/1000s. : +- 4.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 600
Spreed	+ Rated speed rpm : 600 + Aneroid pressure
Tolerance	+ hPa : 900
cm3/1000 strokes : 5.0	+ Del. quantity + cm3/1000 strokes : 223.0
Check tolerance	+ Tolerance
cm3/1000s. : 9.0	+ cm3/1000 strokes : + 1.0
Rated speed rpm : 350	+ Check tolerance + cm3/1000s. : ← 4.0
	+ Spreed
Rack travel in mm : 5.40	+ Tolerance
Tolerance mm : + 0.30	+ cm3/1000 strokes : 5.0
Del. quantity	+ Check tolerance
cm3/1000 strokes : 19.0	+ cm3/1000s. : 9.0
Tolerance cm3/1000 strokes : +- 3.0	T
Check tolerance	
cm3/1000s. : + 6.0	CONTROL LEVER
Spreed	- CONTROL LEVER
Tolerance	+ control lever
cm3/1000 strokes : 6.0	+ position degree : 121.0
Check tolerance	+ tolerance degree : +- 4.0
cm3/1000s. : 10.0	+ RATED SPEED
	+
(B) SETTING OF INJECTION PUMP	+ rack travel mm : 13.70
WITH GOVERNOR	+ Rated speed rpm : 1095 + Tolerance 1/min : + 5
	† Tolerance 1/min : +- 5
GUIDE SLEEVE TRAVEL	+ rack travel mm : 4.00
	+ Rated speed rpm : 1175
Rated speed rpm : 350 guide sleeve	† Tolerance 1/min : +- 15
travel mm : 1.50	+ rack travel mm : 0.50
Tolerance mm : +- 0.10	+ Tolerance mm : +- 0.50
	+ Rated speed rpm : 1300
Rated speed rpm : 1200 guide sleeve	+
travel mm : 8.75	
Tolerance mm : +- 0.25	+ LOW IDLE
mudula, al acua	†
guide sleeve travel mm : 4.10	T control lever
Tolerance mm : + 0.20	position degree : 67.0
TO THE TIME THE PERSON OF THE	tolerance degree : + 4.0
guide sleeve	+
travel mm : 7.00	+ Testing:
Tolerance mm : + 0.20	Total aread area 750
	Rated speed rpm : 350
GUIDE SLEEVE POSITION	+ rack travel mm : 5.40 + Tolerance mm : + 0.10
GOINE SPECKE LOSTITOM	+ Total and The Color

Dated speed ann	: 200	1	Talananaa	
Rated speed rpm	. 200	I	Tolerance cm3/1000 strokes	: +- 1.5
CRT mm min.	: > 7.30	1	Check tolerance	• • • • • • • • • • • • • • • • • • • •
		1	cm3/1000s.	: +- 4.5
Rated speed rpm	: 475	1	Spreed	
, ,		+	Tolerance	
		+	cm3/1000 strokes	: 8.0
TORQUE CONTROL		+	Check tolerance	
D-A-A		†	cm3/1000s.	: 12.0
Rated speed rpm		†	Anomaid managemen	
rack travel mm Tolerance mm	: +- 0.10	Ī	Aneroid pressure hPa	: 1800
TOCCI GITCE THIS	0.10	I	Rated speed rpm	
Rated speed rpm	: 1050	1	Del. quantity	. 000
rack travel mm	: 14.90	1	cm3/1000 strokes	: 243.0
Tolerance mm	: +- 0.10	+	Tolerance	
		+	cm3/1000 strokes	: +- 2.0
Rated speed rpm	: 800	+	Check tolerance	
rack travel mm	: 15.30	+	cm3/1000s.	: +- 5.0
Tolerance mm	: +- U.7U	+++++++++++++++++++++++++++++++++++++++	Spreed	
			Tolerance cm3/1000 strokes	: 8.0
ANEROID/ALTITUDE		Ī	Check tolerance	: 0.0
COMPENSATOR TEST		I	cm3/1000s.	: 12.0
COLLICITOR FOR		1	CIID7 (0000)	
		1	Aneroid pressure	
		+	hPa	: 1800
MEASUREMENT		+	Rated speed rpm	: 1050
		+	Del. quantity	
Pressure hPa	: 300	+	cm3/1000 strokes	: 177.0
rack travel mm	: -3.10	†	Tolerance	
Tolerance mm	: ← 0.05	†	cm3/1000 strokes	: +- 2.0
Pressure hPa	: 600	†	Check tolerance cm3/1000s.	: +- 5.0
	: -1.10	I	Spreed	. + 5.0
Tolerance mm		1	Tolerance	
10001 01100 11111		1	cm3/1000 strokes	: 8.0
Pressure hPa	: 1350	+	Check tolerance	
rack travel mm	: 0.20	+	cm3/1000s.	: 12.0
Tolerance mm	: +- 0.05	+		
		+	Aneroid pressure	
07107 017 017		†	hPa	- -
START CUT-OUT		†	Rated speed rpm	: 500
Dated speed nom	: > 100	Ī	Del. quantity cm3/1000 strokes	: 133.0
Rated speed rpm Rated speed rpm		I	Tolerance	. 133.0
nated speed thin		Ţ	cm3/1000 strokes	: +- 1.0
Check		1	Check tolerance	
speed 1/min	: > 80	+	cm3/1000S.	: +- 4.0
Check		+	Spreed	
speed 1/min	: < 290	+	Tolerance	
		+	cm3/1000 strokes	: 8.0
		 +	Check tolerance	42.0
FUEL DELIVERY CHA	ARACTERISTICS	†	cm3/1000s.	: 12.0
Ananaid anasaura		†		
Aneroid pressure hPa	: 1800	I	BREAKAWAY	
Rated speed rpm	: 1050	I	UNLANATA (
Del. quantity	. 1000	1		
cm3/1000 strokes	: 235.5	1	Rack travel in mm	: 13.70
		1		

B02

Rated speed rpm : 1095 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 Del. quantity

cm3/1000 strokes : 260.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm 350 5.40 rack travel mm Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes 3.0

Check tolerance cm3/1000S.

6.0

Spreed Tolerance

cm3/1000 strokes :

6.0

Check tolerance

cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 646 985

Injection pump

Pump designation : PE6P12OA32ORS7248

: -10Z

EP type number : 0 412 626 901

Governor

Governer design. : RQ275/1150PA987 Governer no. : 0 421 801 578

Cust. part No. : 1248038/4

Customer—spec. information Customer : DAF Motor : RS 200 L

Motor : RS 200 L Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 1.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.25 Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.35 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 167.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.	: +- 4.0	‡	control lever	: 101.0
Spreed		Ţ	position degree tolerance degree	: +- 4.0
Tolerance cm3/1000 strokes	: 5.0	<u>†</u>	RATED SPEED	
Check tolerance cm3/1000s.	: 9.0	<u> </u>	rack travel mm Rated speed rpm Tolerance 1/min	: 10.35 : 1207 : + 8
Rated speed rpm	: 275	+		
Rack travel in mm Tolerance mm Del. quantity	: 5.40 : +- 0.10	1	rack travel mm Rated speed rpm Tolerance 1/min	
cm3/1000 strokes Tolerance	: 16.0	+	rack travel mm Tolerance mm	: 0.70 : +- 0.70
	: + 3.0	1	Rated speed rpm	: 1450
cm3/1000s. Spreed	: + 6.0	<u>†</u>		
Tolerance cm3/1000 strokes	: 8.0	Ŧ	LOW IDLE	
Check tolerance cm3/1000s.	: 12.0	Ī	control lever position degree tolerance degree	
(B) SETTING OF INJ	ECTION PUMP	+	•	4.0
WITH GOVERNOR		‡	Testing:	
		İ	Rated speed rpm rack travel mm	: 275 : 4.70
GUIDE SLEEVE POSIT	ION	+	Tolerance mm	: +- 0.10
Rated speed rpm	: 550	Ŧ	rack travel mm	: 2.00 : 340
Rack travel in mm	: 15.80 : +- 0.60	Ŧ	Rated speed rpm Tolerance 1/min	: + 20
Tolerance mm		Ŧ	Rated speed rpm	: 175
FULL LOAD DELIVERY	AT FULL LOAD STOP	Ī	CRT mm min.	: > 7.00
Rated speed rpm Aneroid pressure hPa	: 1000 : 1000	<u> </u>	TORQUE CONTROL	
Del. quantity		+	Rated speed rpm	: 1000
cm3/1000 strokes Tolerance		‡	rack travel mm Tolerance mm	: 11.35 : + 0.05
cm3/1000 strokes Check tolerance	: +- 1.0	‡	Rated speed rpm	: 1150
	: +- 4.0	+	rack travel mm Tolerance mm	: 11.35 : + 0.10
cm3/1000 strokes	: 5.0	+	ANEDOTA / AL TITUDE	
Check tolerance cm3/1000s.	: 9.0	†	ANEROID/ALTITUDE COMPENSATOR TEST	
		‡	SETTING	

CONTROL LEVER

Rated speed rpm	:	600
Pressure hPa	:	1000
rack travel mm	:	11.35
Tolerance mm	;	→ 0.05

MEASUREMENT

Pressure hPa	:	_
Rated speed rpm	:	600
rack travel mm	:	9.20
Tolerance mm	: -	⊢ 0.15

Rated	speed	rom	•	600
11000	JHC CU	, 500	•	900

Pressure hPa	:	340
rack travel mm	:	10.75
Tolerance mm	: +	- 0.05

Pressure hPa	;	200
rack travel mm	;	9.70
Tolerance mm	: +-	0.10

FUEL DELIVERY CHARACTERISTICS

Android pressure	Ane	roid	pressure
------------------	-----	------	----------

hPa	:	_
Rated speed rpm	:	600
Del. quantity		

Del. quantity cm3/1000 strokes : 117.0

Tolerance cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 10.35
Rated speed rpm : 1207
Tolerance 1/min : + 8

LOW IDLE

Rated speed rpm rack travel mm	:	275 5.40
Tolerance mm	: +-	0.10
Del. quantity	·	
cm3/1000 strokes	:	16.0
Tolerance		

Tolerance cm3/1000 strokes : +- 3.0

Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.05.95 Test oil : ISO 4113

Combination No. : 0 402 646 988

Injection pump

Pump designation : PE6P12OA32ORS723O

: -10x

EP type number : 0 412 626 899

Governor

Governer design. : RQV250...1000PA990K

Governer no. : 0 421 815 274

Cust. part No. : 1250705/4

Customer—spec. information Customer : DAF Motor : WS 295 L

Power KW : 295.0

.

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 13.95 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 259.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.	: + 4.0	guide sleeve travel mm : 3.79 Tolerance mm : +- 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm : 1310 guide sleeve
Check tolerance cm3/1000s.	: 9.0	travel mm : 13.50 Tolerance mm : +- 0.50
Rated speed rpm	: 250	GUIDE SLEEVE POSITION
Rack travel in mm Tolerance mm	: 6.10 : +- 0.10	Rated speed rpm : 1130
Del. quantity cm3/1000 strokes	: 17.0	Rack travel in mm : 13.50 Tolerance mm : +- 1.30
Tolerance cm3/1000 strokes	: +- 3.0	FILL LOAD DELTUEDY AT FILL LOAD OTOD
	: + 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed Tolerance	<u> </u>	Rated speed rpm : 980 Aneroid pressure
cm3/1000 strokes Check tolerance	+	hPa : 1500 Del. quantity
cm3/1000s.	: 12.0	cm3/1000 strokes : 259.0 Tolerance
(B) SETTING OF INJ	ECTION PUMP	cm3/1000 strokes : + 1.0 Check tolerance
WITH GOVERNOR	‡	cm3/1000s. : +- 4.0 Spreed
GUIDE SLEEVE TRAVE	Ţ .	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Rated speed rpm guide sleeve	: 250	cm3/1000s. : 9.0
travel mm	: 1.53 +	
	: +- 0.10	CONTROL LEVER
guide sleeve	: 1038	control lever
travel mm	9.74	position degree : 120.0
Tolerance mm	: +- 0.10	tolerance degree : +- 4.0
guide sleeve	: 686	RATED SPEED
travel mm	: 6.41	rack travel mm : 12.95
	: +- 0.25	Rated speed rpm : 1032 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 284	rack travel mm : 4.00
travel mm	: 2.27	Rated speed rpm : 1150
Toterance mm	+ 0.25	Tolerance 1/min : +- 15
guide sleeve	: 334	rack travel mm : 0.70 Tolerance mm : + 0.70
travel mm	: 3.17 +	Rated speed rpm : 1275
Tolerance mm	: + 0.25	
Rated speed rpm	: 390	LOW IDLE

		+ Pressure hPa : 730 + rack travel mm : 12.65
control lever		+ rack travel mm : 12.65 + Tolerance mm : +- 0.05
position degree	: 70.0	Total arios min
tolerance degree		+ Pressure hPa : 300
		+ rack travel mm : 9.70
Testing:		+ Tolerance mm : +- 0.10
Rated speed rpm	: 250	+
rack travel mm		+
Tolerance mm	: ← 0.10	FUEL DELIVERY CHARACTERISTICS
rack travel mm	: 2.00	T FOEL DELIVER! CHARACTERISTICS
Rated speed rpm	: 350	+ Aneroid pressure
Tolerance 1/min		+ hPa : 1500
		+ Rated speed rpm : 600
Rated speed rpm	: 150	+ Del. quantity
ADT 1		- cm3/1000 strokes : 257.0
CRT mm min.	: > 7.00	+ Tolerance + cm3/1000 strokes : +- 2.0
TORQUE CONTROL		- cm3/1000s. : +- 5.0
		+ Spreed
Rated speed rpm	: 980	+ Tolerance
rack travel mm	: 13.95	+ cm3/1000 strokes : 8.0
Tolerance mm	: ← 0.05	+ Check tolerance
B 4 1		+ cm3/1000s. : 12.0
Rated speed rpm		†
rack travel mm Tolerance mm		+ Aneroid pressure + hPa : -
TOTEL BLICE 11811	. , 0.05	Rated speed rpm : 600
Rated speed rpm	: 825	+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 165.0
Tolerance mm		† Tolerance
_ ,		+ cm3/1000 strokes : +- 1.0
Rated speed rpm		+ Check tolerance
rack travel mm Tolerance mm		+ cm3/1000s. : +- 4.0
roterance mm	: 0.10	I
		BREAKAWAY
ANEROID/ALTITUDE		†
COMPENSATOR TEST		Book trough in the 12 OF
		Rack travel in mm: 12.95 Rated speed rpm: 1032
SETTING		+ Tolerance 1/min : + 5
		+
Rated speed rpm	: 980	+
Pressure hPa	: 1500	+
rack travel mm	: 13.95	†
Tolerance mm	: 0.05	İ
MEASUREMENT		LOW IDLE
Pressure hPa	• -	+ Rated speed rpm : 250
Rated speed rpm	980	rack travel mm : 6.10
rack travel mm	8.90	+ Tolerance mm : +- 0.10
Tolerance mm	: +- 0.10	→ Del. quantity
		+ cm3/1000 strokes : 17.0
Rated speed rpm	: 980	+ Tolerance
		+ cm3/1000 strokes : $+$ 3.0

Check tolerance cm3/1000s. : +- 6.0 Spreed
Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. :

8.0

12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 402 648 980

Injection pump

Pump designation : PE8P12OA32OLS7839

: -10

EP type number : 0 412 628 855

Governor

Governer design. : RQV300...950PA797

: -39

Governer no. : 0 421 814 115

Cust. part No. : 0250749102

Customer-spec. information
Customer : MB-NFZ
Motor : 0M442 LA
Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5
Tolerance bar : +- 0.1

Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 14.50Tolerance mm : + 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance "NW : \leftarrow 0.75

Start of delivery mark

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 550

Rack travel in mm: 15.20

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 289.0

	,	Talamana an at 0.25
Tolerance	***************************************	- Tolerance mm : +- 0.25
cm3/1000 strokes	: + 1.0	- Rated speed rpm : 1092 - guide sleeve
Check tolerance	The same and the s	travel mm : 10.00
cm3/1000s.	: + 4.0	Folerance mm : + 0.25
Spreed		Rated speed rpm : 1190
Tolerance	4	guide steeve
cm3/1000 strokes	: 6.0	travel mm : 11.50
	1	· Tolerance mm : + 0.50
Check tolerance		
cm3/1000s.	; 9.0	
	 	GUIDE SLEEVE POSITION
Rated speed rpm	: 300 +	•
	+	Rated speed rpm : 1030
Rack travel in mm		•
Tolerance mm	: +- 0.30 +	Rack travel in mm : 14.20
Del. quantity	†	Tolerance mm : +- 2.00
cm3/1000 strokes	: 19.0	•
Tolerance	t	
cm3/1000 strokes	: +- 3.0 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	: + 6.0	Dottod anged mmm . FEO
cm3/1000s.	; +- 0.0	Rated speed rpm : 550
Spreed	Ť	Aneroid pressure hPa : 1200
Tolerance cm3/1000 strokes	; 6.0 I	Del. quantity
Check tolerance	· 0.0	om3/1000 strokes : 289.0
cm3/1000s.	: 10.0	Tolerance
(1157 10005.	· 18.0	cm3/1000 strokes : +- 1.0
	I	
(B) SETTING OF IN.	ECTION PIMP	Check tolerance
(B) SETTING OF INJ	ECTION PUMP	Check tolerance cm3/1000s. : +- 4.0
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	Check tolerance cm3/1000s. : +- 4.0 Spreed
	ECTION PUMP	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance
	<u> </u>	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance
WITH GOVERNOR	<u> </u>	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0
WITH GOVERNOR	<u> </u>	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve	: 300	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm	: 300 : 1.29	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve	: 300	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 300 : 1.29	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 300 : 1.29 : + 0.20 : 1010	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	1.29 : + 0.20 : 1010 : 8.56	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 300 : 1.29 : + 0.20 : 1010	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm Guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	1.29 : + 0.20 : 1010 : 8.56 : + 0.15	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	1.29 : + 0.20 : 1010 : 8.56	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66 : + 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66 : + 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66 : + 0.25 : 617	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1095
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66 : + 0.25 : 617	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1095 Tolerance 1/min : + 15 rack travel mm : 0.75
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66 : + 0.25 : 617	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1095 Tolerance 1/min : + 15 rack travel mm : 0.75 Tolerance mm : 0.75 Tolerance mm : 0.75
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	1.29 : + 0.20 : 1010 : 8.56 : + 0.15 : 567 : 4.66 : + 0.25 : 617 : 5.23 : + 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 121.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.20 Rated speed rpm : 995 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1095 Tolerance 1/min : + 15 rack travel mm : 0.75

LOW IDLE	
control lever position degree tolerance degree	: 82.0 : ← 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.20 : ← 0.10
Rated speed rpm	: 175
CRT mm min.	: > 8.50
Rated speed rpm	: 360
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 550 : 15.20 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 950 : 15.20 : +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 400 : 1200 : 15.20 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 400 : 8.25 : +- 0.15
Rated speed rpm	: 400
Pressure hPa rack travel mm Tolerance mm	: 300 : 9.95 : + 0.20
Pressure hPa rack travel mm Polerance mm	: 500 : 11.65 : + 0.20

START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 190 : < 220
Check speed 1/min Check	: > 170
speed 1/min	: < 240
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: 1200
Rated speed rpm Del. quantity	: 950
cm3/1000 strokes Tolerance	: 271.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure	
hPa	: - : 500
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes Tolerance	: 136.0
cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: +- 4.0
Spreed Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	
cm3/1000s.	: 12.0
BREAKAWAY	
Rack travel in mm	
Rated speed rpm	
Tolerance 1/min	: +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity cm3/1000 strokes	: 255.0
Tolerance cm3/1000 strokes	: +- 20.0
Check tolerance	
cm3/1000s.	: +- 24.0

LOW IDLE

Rated speed rpm	:		300
rack travel mm	:		5.20
Tolerance mm	:	+-	0.30
Del. quantity			
cm3/1000 strokes	;		19.0
Tolerance			
cm3/1000 strokes	:	+	3.0
Check tolerance			
cm3/1000s.	;	+-	6.0
Spreed			
Tolerance			
cm3/1000 strokes	:		6.0
Check tolerance			
cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 676 815

Injection pump

Pump designation: PE6P120A320LS7808-3 EP type number : 0 412 626 870

Governor

Governer design. : RSV500...900P0A535

: -8

Governer no. : 0 421 833 387

Cust. part No. : 0230747602

Customer-spec. information : MB-NFZ Customer Motor : OM 441 LA Power KW : 236.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar :+ 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.25 : +- 0.05 Tolerance mm Check tolerance mm : +- 0.10

Rack travel in mm: 20.50 Tolerance mm : + 0.50

: 6-3-5-2-4-Firing order : 1

: 0-60-120-180-240 Phasing

: -300 : +- 0.30Tolerance

Check

tolerance °NW : + 0.50

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 088

Rack travel in mm: 14.50 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 229.0

1	
Tolerance cm3/1000 strokes : + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 82.0
Spreed Tolerance cm3/1000 strokes : 6.0	tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 9.0	LOW IDLE
Rated speed rpm : 500	
Rack travel in mm: 4.60 Tolerance mm: +- 0.30 Del. quantity	control lever position degree : 69.0 tolerance degree : +- 4.0
cm3/1000 strokes : 19.0 +	Testing:
cm3/1000 strokes : +- 3.0	Rated speed rpm : 500 rack travel mm : 4.60 Tolerance mm : +- 0.10
Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance	rack travel mm : 2.00 Rated speed rpm : 530 Tolerance 1/min : +- 30
cm3/1000s. : 12.0	Rated speed rpm : 100
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CRT mm min. : > 19.50 SET IDLE AUXILIARY SPRING
GUIDE SLEEVE POSITION	rack travel mm : 2.00
Rated speed rpm : 800	TORQUE CONTROL
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 880 rack travel mm : 14.50 Tolerance mm : + 0.05
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 700 rack travel mm : 14.50
Rated speed rpm : 880 Aneroid pressure	Tolerance mm : +- 0.10
hPa : 1200 Del. quantity : cm3/1000 strokes : 229.0 Tolerance : cm3/1000 strokes : +- 1.0	ANEROID/ALTITUDE COMPENSATOR TEST
Check tolerance cm3/1000s. : +- 4.0	MEASUREMENT
Spreed Tolerance cm3/1000 strokes : 6.0	Pressure hPa : - Rated speed rpm : 500
Check tolerance cm3/1000s. : 9.0	Pressure hPa : 400

rack travel mm	: 1.65
Tolerance mm	: + 0.05
Pressure hPa	: 600
rack travel mm	: 3.30
Tolerance mm	: + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm Del. quantity	: 1200 : 700
cm3/1000 strokes	: 229.0
Tolerance cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity	: 500
cm3/1000 strokes	: 146.0
Tolerance cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s.	: +- 4.0

Tolerance cm3/1000 strokes : 8.0

: 12.0

STARTING FUEL DELIVERY

Check tolerance cm3/1000s.

Del. quantity cm3/1000 strokes	:	250.0
Tolerance cm3/1000 strokes	: +	- 10.0
Check tolerance cm3/1000s.	: +	- 14.0

Rated speed rpm : 100

LOW IDLE

Rated speed rpm	:	500
rack travel mm	:	4.60
Tolerance mm	: +-	0.30
Del. quantity		
cm3/1000 strokes	:	19.0

Tolerance		
cm3/1000 strokes	: +	3.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	;	8.0
Check tolerance		
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 402 678 821

Injection pump

Pump designation : PE8P12OA320LS7860-1

EP type number : 0 412 628 871

Governor

Governer design. : RSV350...1050P0A535

: -11

Governer no. : 0 421 833 391

Cust. part No. : 0210749302

Customer—spec. information Customer : MB-NFZ Motor : OM 402 LA Power KW : 280.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Overflow quantity

min. l/h : 110 Tolerance l/h : ← 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 2.5
x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

tolerance mm

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.55
Tolerance mm : +- 0.05
Check

Rack travel in mm : 20.50

Tolerance mm : + 0.50

Firing order : 8-7-2-6-3 :-5-4-1

: **←** 0.10

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.50

Start of delivery mark

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1030

Rack travel in mm : 12.85
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 207.0

Tolerance + cm3/1000 strokes : +- 1.0 +	
	CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 99.0
Spreed Tolerance cm3/1000 strokes : 6.0	tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 9.0	LOW IDLE
Rated speed rpm : 350	
Rack travel in mm: 5.00 Tolerance mm: +- 0.30 Del. quantity	control lever position degree : 74.0 tolerance degree : +- 4.0
cm3/1000 strokes : 13.0	Testing:
cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0	Rated speed rpm : 350 rack travel mm : 5.00 Tolerance mm : +- 0.10
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	rack travel mm : 2.00 Rated speed rpm : 405 Tolerance 1/min : +- 30
cm3/1000s. : 12.0 +	Rated speed rpm : 100
(B) SETTING OF INJECTION PUMP +	CRT mm min. : > 19.50
	SET IDLE AUXILIARY SPRING
GUIDE SLEEVE POSITION	Rated speed rpm : 100
Rated speed rpm : 800	TORQUE CONTROL
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 1030 rack travel mm : 12.85 Tolerance mm : + 0.05
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1030	Rated speed rpm : 700 rack travel mm : 13.50 Tolerance mm : +- 0.10
Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 207.0	Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0	ANEROID/ALTITUDE COMPENSATOR TEST
Spreed Tolerance cm3/1000 strokes : 6.0	MEASUREMENT
Check tolerance cm3/1000s. : 9.0	Pressure hPa : -

Rated speed rpm	: 400
Pressure hPa	: 350
rack travel mm	: 0.75
Tolerance mm	: +- 0.20
Pressure hPa	: 650
rack travel mm	: 2.10
Tolerance mm	: + 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	1200
Rated speed rpm	•	700
Del. quantity	•	. 00
cm3/1000 strokes	:	234.0
Tolerance	•	234.0
cm3/1000 strokes	• 4	- 2.0
Check tolerance	• •	_ 2,0
•		6.0
cm3/1000s.	; Т	- 5.0
Spreed		
Tolerance		0.0
cm3/1000 strokes	:	8.:0
Check tolerance		40.0
cm3/1000s.	:	12.0
Aneroid pressure		
hPa	:	_
Rated speed rpm	:	500
Del. quantity		
cm3/1000 strokes	:	135.0
Tolerance		
cm3/1000 strokes	: +	- 1.0
Check tolerance		
cm3/1000s.	: +	- 4.0
- 1		

STARTING FUEL DELIVERY

Check tolerance

Kated speed rpm	:	100
Del. quantity cm3/1000 strokes	:	210.0
Tolerance cm3/1000 strokes	: +-	10.0
Check tolerance cm3/1000s.	• 4-	14.0
UND/ 10000.	•	17.0

cm3/1000 strokes : 8.0

: 12.0

LOW IDLE

Rated speed rpm	: 350
rack travel mm	: 5.00
Tolerance mm	: +- 0.30
Del. quantity	
cm3/1000 strokes	: 13.0
Tolerance	
cm3/1000 strokes	: +- 3.0
Check tolerance	
cm3/1000s.	: ← 6.0
Spreed	3.3
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	. 0.0
cm3/1000s.	: 12.0
CM3/10005.	: 12.0

End of test specification sheet

Spreed Tolerance

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.09.95 Test oil : ISO 4113

Combination No. : 0 402 696 801

Injection pump

Pump designation : PE6P120A720RS7211

: -10

EP type number : 0 412 626 931

Governor

Governer design. : RE30

Governer no. : 0 421 890 009

Cust. part No. : 1328037

Customer-spec. information : SCANIA Customer

: DTC1102, DSC1170 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 025

2.5 Inlet press. bar Tolerance bar 0.1

Tolerance l/h : +- 20.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008 Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

Pump-specific values in Section (B)

must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +-1.0

5.05 Prestroke mm :

5.05 Prestroke mm : Tolerance mm : +- 0.05 Tolerance mm : + 0.05

Check

: + 0.10tolerance mm

Check

: + - 0.10tolerance mm

Rack travel in mm : 10.50

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

: +- 0.50 tolerance "NW

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance *NW : + - 0.75

Barrel no. : 1 Vibration damper (RoBo diaphragm) : 3.1 (B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR POSITION Engine speed min-1: Setting point (P, R and H pump) Uact V 3.100 : CRT mm 13.00 Tolerance mm : +/- 0.05 Check tolerance mm : +/- 0.10 Check value (P, R and H pump) Uact V 1.700 CRT mm 6.15 Tolerance mm : +/- 0.25 Check tolerance mm : +/- 0.30 Setting point (M pump) Uact V 3,100 CRT mm 12.50 : +/- 0.05 Tolerance mm Check : +/- 0.10tolerance mm Check value (amua M) Uact V 1.700 CRT mm 5.50 : +/- 0.25 Tolerance mm Check : +/- 0.30 tolerance mm Stop position : Value with Uact V

deenergised adjusting magnet and control rod in stop position.

0.75 CRT mm : +/- 0.25 Tolerance mm

Check

: +/- 0.35tolerance mm

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60 Amplitude V 1.4 : +/- 0.6 Tolerance V

Check

tolerance V : +/- 1.20

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

Rated speed rpm 700 3.000 Uact V Del. quantity cm3/1000 strokes : 248.0 Tolerance cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

FUEL DELIVERY CHARACTERISTICS

950 Rated speed rpm : Uact V 3.000 Del. quantity cm3/1000 strokes : 224.0 Tolerance cm3/1000 strokes : +-4.0 Check tolerance

cm3/1000s. 6.0

B22

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.09.95 Edition : ISO 4113 Test oil

Combination No. : 0 402 696 803

Injection pump

Pump designation : PE6P12OA72ORS7211 EP type number : 0 412 626 838

Governor

Governer design. : RE30

: 0 421 890 019 Governer no.

Cust. part No. : 1370681

Customer-spec. information Customer : SCANIA

: DSC1122, DTC1102 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar

Tolerance L/h : +- 20.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 bar 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 600 x length mm :

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +-1.0

5.05 Prestroke mm :

Prestroke mm 5.05 : + 0.05Tolerance mm Tolerance mm : +- 0.05

Check tolerance mm

: ← 0.10 Check : +- 0.10

tolerance mm

Rack travel in mm: 10.50

Rack travel in mm: 10.50 Tolerance mm : + 1.50 : +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Barrel no. Vibration damper (RoBo diaphragm) : 3.1 (B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR POSITION Engine speed min-1: 0 Setting point (P, R and H pump) Uact V 3,100 CRT mm 13.00 : +/- 0.05 Tolerance mm Check : +/- 0.10 tolerance mm Check value (P, R and H pump) 1,700 Uact V 6.15 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30tolerance mm Setting point (mpump) Uact V 3.100 CRT mm 12.50 Tolerance mm : +/- 0.05 Check tolerance mm : +/- 0.10 Check value (amua M) 1,700 Uact V 5.50 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30 tolerance mm Stop position : Value with Uact V

deenergised adjusting magnet

and control rod in stop position. 0.75 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.35 tolerance mm ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps) Test with control rod in stop position 60 Engine speed min-1: Amplitude V 1.4 Tolerance V : +/- 0.6 Check : +/- 1.20 tolerance V Engine speed min-1: 600 Difference Amplitude to Amplitude V : max.1.4 (C) INJECTION PUMP WITH POSITIONER TEST POINT V1 700 Rated speed rom Uact V 3,000 Del. quantity cm3/1000 strokes : 248.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. 12.0 FUEL DELIVERY CHARACTERISTICS Rated speed rpm : 950 3.000 Uact V Del. quantity cm3/1000 strokes : 224.0 Tolerance cm3/1000 strokes : +-Check tolerance

6.0

cm3/1000s.



Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.09.95 : ISO 4113 Test oil

Combination No. : 0 402 696 804

Injection pump

Pump designation : PE6P12OA72ORS7355 EP type number : 0 412 626 933

Governor

Governer design. : RE30

: 0 421 890 022 Governer no.

: 1370672 Cust. part No.

Customer-spec. information Customer : SCANIA

: DSC1122, DTC1102 Motor

TEST BENCH REQUIREMENTS

: 4.1 Inlet line

Test oil inlet

temp. °C 40 Tolerance °C 2.0

: 1 417 413 025 Overflow valve

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 Tolerance bar

Test lines : 1 680 750 008

Outside diameter :

x inside diameter: 2.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 5.05

5.05 Prestroke mm : : +- 0.05 Tolerance mm : +- 0.05 Tolerance mm

Check

tolerance mm : + - 0.10

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Rack travel in mm: 10.50 Tolerance mm : + 1.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

: + - 0.50tolerance "NW

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

and control rod in stop position. Vibration CRT mm 0.75 damper : +/- 0.25 Tolerance mm (RoBo diaphragm) : 3.1 Check : +/- 0.35 tolerance mm (B) POSITIONER TESTING Warm-up time: 3 minutes at ENGINE-SPEED SENSOR (All P and R pumps not n=600 min-1, Uact = 2.5 VH and M pumps) Test with control rod TESTING & SETTING RACK TRAVEL SENSOR in stop position POSITION Engine speed min-1: 60 Engine speed min-1: Amplitude V : 1.4 Tolerance V : +/- 0.6 Setting point Check (P, R and H pump) tolerance V : +/- 1.20 Uact V 3.100 Engine speed min-1: 600 13.00 CRT mm Difference : +/- 0.05 Amplitude to Tolerance mm Amplitude V Check : max.1.4 : +/- 0.10 tolerance mm Check value (C) INJECTION PUMP WITH POSITIONER (P, R and H pump) TEST POINT V1 1.700 Uact V : CRT mm 6.15 Rated speed rpm 700 : +/- 0.25 Uact V 3,000 Tolerance mm : Del. quantity Check : +/- 0.30 cm3/1000 strokes : 248.0 tolerance mm Tolerance cm3/1000 strokes : +-Setting point Check tolerance cm3/1000s. : +-(amua M) 4.0 Spreed 3.100 Tolerance Uact V 12,50 CRT mm cm3/1000 strokes : 8.0 : +/- 0.05Tolerance mm Check tolerance cm3/1000s. 12.0 Check : +/- 0.10 tolerance mm FUEL DELIVERY CHARACTERISTICS Check value 950 (amua M) Rated speed rpm Uact V 3.000 1.700 Uact V Del. quantity cm3/1000 strokes : CRT mm 5.50 224.0 Tolerance : +/- 0.25 Tolerance mm cm3/1000 strokes : +-4.0 Check : +/- 0.30 Check tolerance tolerance mm cm3/1000s.6.0 : +-Stop position : Value with Uact V deenergised adjusting magnet

Barrel no.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.09.95 Test oil : ISO 4113

Combination No. : 0 402 698 802

Injection pump

Pump designation : PE8P12OA92O/4LS7149

EP type number : 0 412 628 826

Governor

Governer design. : RE30

Governer no. : 0 421 890 007

Cust. part No. : 397567

Customer—spec. information Customer : SCANIA Motor : DSC1404

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Tolerance l/h: +- 20.0

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

25 0000

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05

Prestroke mm : 5.05
Tolerance mm : +- 0.05
Tolerance mm : +- 0.05

Check
tolerance mm : +- 0.10
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50

Rack travel in mm : 10.50
Tolerance mm : + 1.50
Tolerance mm : + 1.50

Firing order : 1-2-7-3-4 :-5-6-8

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance "NW : +- 0.50

Start of delivery mark

Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. and control rod in stop position. Vibration CRT mm 0.75 : +/- 0.25 damper Tolerance mm (RoBo diaphragm) : 3.2 Check : +/- 0.35 tolerance mm (B) POSITIONER TESTING ENGINE-SPEED SENSOR Warm-up time: 3 minutes at (All P and R pumps not n=600 min-1, Uact = 2.5 VH and M pumps) Test with control rod TESTING & SETTING RACK TRAVEL SENSOR in stop position POSITION Engine speed min-1: 60 Engine speed min-1: Amplitude V n 1.4 Tolerance V : +/- 0.6 Setting point Check : +/- 1.20 (P, R and H pump) tolerance V 3.100 Uact V Engine speed min-1: 600 CRT mm 13.00 Difference : +/- 0.05 Tolerance mm Amplitude to Check Amplitude V : max.1.4 : +/- 0.10 tolerance mm Check value (C) INJECTION PUMP WITH POSITIONER (P, R and H pump) TEST POINT V1 Uact V 1.700 6.15 700 CRT mm Rated speed rpm 3.180 Tolerance mm : +/- 0.25 Uact V Del. quantity Check ; +/- 0.30 cm3/1000 strokes : 227.0 tolerance mm Tolerance cm3/1000 strokes : +-1.0 Setting point Check tolerance (qmuq M) cm3/1000s. 4.0 Spreed Uact V 3.100 Tolerance CRT mm 12.50 cm3/1000 strokes : 6.0 Tolerance mm : +/- 0.05 Check tolerance Check cm3/1000s.9.0 : +/- 0.10 tolerance mm FUEL DELIVERY CHARACTERISTICS Check value 950 (M pump) Rated speed rpm : Uact V 3.180 1.700 Del. quantity Uact V cm3/1000 strokes : 220.0 5.50 CRT mm : +/- 0.25 Tolerance Tolerance mm cm3/1000 strokes : +-Check : +/- 0.30Check tolerance tolerance mm cm3/1000s. : +-6.0 Stop position

: Value with

deenergised adjusting magnet

Uact V



Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 27.09.95 Edition Test oil : ISO 4113

Combination No. : 0 402 698 804

Injection pump

Pump designation : PE8P120A720LS7205

: -10

: 0 412 628 895 EP type number

Governor

Governer design. : RE30

: 0 421 890 007 Governer no.

Cust. part No. : 1328039

Customer-spec. information

: SCANIA Customer

: DSC1409, DSC1416 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 Tolerance *C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar 0.1

Tolerance L/h : +- 20.0°

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

bar 251.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0

x Length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

26.0 Test pressure bar: Tolerance bar : +-1.0

5.05 Prestroke mm

5.05 Prestroke mm : + 0.05Tolerance mm : + - 0.05Tolerance mm

Check

: +- 0.10tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Rack travel in mm: 10.50 Tolerance mm : +- 1.50 : +- 1.50 Tolerance mm

Firing order : 1-2-7-3-4

: - 5- 6- 8

: 0-45-90-135-180 Phasing : -225-270-315

Tolerance : +- 0.30

Check

: +- 0.50 tolerance °NW

Start of delivery mark

Tolerance : + 0.50

C05

Check					
tolerance *NW	:	+	0.75		
Barrel no.	:		1		
Vibration damper (RoBo diaphragm)	:	3.2			
(B) POSITIONER TE Warm-up time: 3 m n=600 min-1, Uact	inu	tes			
TESTING & SETTING POSITION	RA	CK 1	TRAVEL	SENSOR	
Engine speed min-	1:		0		
Setting point (P, R and H pump)					
Uact V CRT mm Tolerance mm Check tolerance mm	: -	1 +/-	3.100 3.00 0.05 0.10		
Check value (P, R and H pump)					
Uact V CRT mm Tolerance mm Check tolerance mm		+/-	1.700 6.15 0.25 0.30		
Setting point (M pump)					
Uact V CRT mm Tolerance mm Check	:	1	3.100 2.50 0.05		
tolerance mm	: +	-/-	0.10		
Check value (M pump)					
Uact V CRT mm Tolerance mm Check tolerance mm		-/-	1.700 5.50 0.25		
Stop position					

Uact V : Value with deenergised adjusting magnet and control rod in stop position. CRT mm 0.75 : +/- 0.25 Tolerance mm Check : +/- 0.35 tolerance mm ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps) Test with control rod in stop position Engine speed min-1: 60 Amplitude V 1.4 Tolerance V : +/- 0.6 Check : +/- 1.20 tolerance V Engine speed min-1: 600 Difference Amplitude to Amplitude V : max.1.4 (C) INJECTION PUMP WITH POSITIONER TEST POINT V1 Rated speed rpm 700 3.000 Uact V Del. quantity cm3/1000 strokes : 248.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 FUEL DELIVERY CHARACTERISTICS 950 Rated speed rpm 3.000 Uact V Del. quantity cm3/1000 strokes : 224.0 Tolerance cm3/1000 strokes : +-4.0 Check tolerance

6.0

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 27.09.95 Test oil : ISO 4113

Combination No. : 0 402 698 806

Injection pump

Pump designation : PE8P120A720LS7331

: -10

EP type number : 0 412 628 896

Governor

Governer design. : RE30

Governer no. : 0 421 890 022

Cust. part No. : 1362097

Customer—spec. information Customer : SCANIA

Motor : DSC1409, DSC1416

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05

Prestroke mm : 5.05
Tolerance mm : + 0.05
Tolerance mm : + 0.05

Check tolerance mm : + 0.10

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

Rack travel in mm: 10.50
Tolerance mm: + 1.50
Tolerance mm: + 1.50

Firing order : 1-2-7-3-4

: - 5- 6- 8

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: +- 0.50

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

Vibration

damper

(RoBo diaphragm) : 3.2

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR POSITION

Engine speed min-1: n

Setting point (P, R and H pump)

Uact V 3,100 CRT mm 13.00 Tolerance mm : +/- 0.05

Check

tolerance mm : +/- 0.10

Check value (P, R and H pump)

1.700 Uact V CRT mm 6.15 Tolerance mm : +/- 0.25

Check

: +/- 0.30 tolerance mm

Setting point (amuq M)

3.100 Uact V CRT mm 12.50 Tolerance mm : +/- 0.05

Check

: +/- 0.10 tolerance mm

Check value (qmuq M)

1.700 Uact V CRT mm 5.50 Tolerance mm : +/- 0.25 Check

: +/- 0.30 tolerance mm

Stop position

Uact V : Value with

deenergised adjusting magnet and control rod in

stop position.

CRT mm 0.75 Tolerance mm : +/- 0.25

Check

: +/- 0.35tolerance mm

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60 Amplitude V 1.4 Tolerance V : +/- 0.6

Check

: +/- 1.20 tolerance V

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

Rated speed rpm 700 Uact V 3.000 Del. quantity

cm3/1000 strokes : 248.0 Tolerance

cm3/1000 strokes : +-

Check tolerance 4.0

cm3/1000s. Spreed

Tolerance cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm 950 Uact V 3.000

Del. quantity

cm3/1000 strokes : 224.0

Tolerance

cm3/1000 strokes : +-4.0

Check tolerance

cm3/1000s. : +-6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.02.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 736 901

Injection pump

Pump designation : PES6P120A720/3LS7251

: -1

EP type number : 0 412 726 926

Governor

Governer design. : RQV300...1000PA962

: -16K

: 0 421 815 506 Governer no.

Cust. part No. : 51.11103-7505

Customer-spec. information Customer : MAN

: D2866 LF09 Motor Power KW 294.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C 40

Qverflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 165 Tolerance L/h : +- 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar

Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.8 Tolerance bar : + 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05

Check

: ← 0.10 tolerance mm

Rack travel in mm: 13.00 Tolerance mm : +- 0.50

Firing order : 6-2-4-1-5-

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery blocking

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

: 6 Barrel no.

BASIC SETTING

Rated speed rpm : 750

Rack travel in mm: 6.50

C11

Tolerance mm : +- 0.10	†
Del. quantity cm3/1900 strokes : 107.0	GUIDE SLEEVE TRAVEL
Tolerance	Rated speed rpm : 300 guide sleeve
cm3/1000 strokes : + 8.0 Check tolerance	travel mm : 2.65 Tolerance mm : + 0.20
cm3/1000s. : +- 14.0	Rated speed rpm : 1056 guide sleeve
Spreed	travel mm : 8.07 Tolerance mm : + 0.15
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 423 guide sleeve
Check tolerance cm3/10005. : 6.0	travel mm : 4.01 Tolerance mm : + 0.25
Rated speed rpm : 900	Rated speed rpm : 1480 guide sleeve
Rack travel in mm : 13.40 Tolerance mm : +- 0.05	travel mm : 13.50 Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes : 279.0	GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1310 Rack travel in mm : 12.10
Check tolerance cm3/1000s. : +- 4.0	+ Tolerance mm : + 1.30
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : 10.0	Rated speed rpm : 900 Aneroid pressure hPa : 1200
Check tolerance cm3/1000s. : 14.0	+ Del. quantity + cm3/1000 strokes : 279.0 + Tolerance
Rated speed rpm : 300	+ cm3/1000 strokes : + 1.0 + Check tolerance
Rack travel in mm : 5.40 Tolerance mm : ← 0.20	cm3/1000s. : + 4.0 + Spreed
Del. quantity cm3/1000 strokes : 32.0 Tolerance	+ Tolerance + cm3/1000 strokes : 10.0 - Check tolerance
cm3/1000 strokes : + 3.0 Check tolerance	cm3/1000s. : 14.0
cm3/1000s. : +- 6.0 Spreed Tolerance	CONTROL LEVER
cm3/1000 strokes : 8.0 Check tolerance	control lever
cm3/1000s. : 12.0	position degree : 285.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	RATED SPEED

rack travel mm Rated speed rpm	: 12.10 : 1045	MEASUREMENT	
	: +- 5	Pressure hPa Rated speed rpm	: - : 900
rack travel mm	: 4.00 I	rack travel mm	
	1220	rack travel mm Tolerance mm	: +- 0.10
	: + 15	rocci di ice min	0.10
rocci di le iriniri	1	Rated speed rpm	: 900
rack travel mm	: 0.50	natea apeea i piir	. 700
	: + 0.50	Pressure hPa	: 220
	: 1350	rack travel mm	9.45
The control of the co	1	Tolerance mm	: +- 0.05
	1	TOTAL MANAGEMENT	3.03
		Pressure hPa	: 720
LOW IDLE	1	rack travel mm	: 11.90
241, 2524	1	Tolerance mm	· + 0.20
	1	TO COT CITIES THAT	3.23
control lever	1		
position degree	: 245.0	START CUT-OUT	
tolerance degree			
1100: 00: 00	<u> </u>	Rated speed rpm	: > 100
Testing:	1	Rated speed rpm	
	1	wassa speed (p.m	<u> </u>
Rated speed rpm	: 300	Check	
rack travel mm	5.40	speed 1/min	: > 80
	: + 0.10	Check	
	1	speed 1/min	: < 260
Rated speed rpm	: 200		
CRT mm min.	; > 7.50	FUEL DELIVERY CHA	ARACTERISTICS
	+		
Rated speed rpm	: 330 +	Aneroid pressure	
	+	hPa	: 1200
		Rated speed rpm	: 1000
TORQUE CONTROL	+	Del. quantity	
	+	cm3/1000 strokes	: 259.0
Rated speed rpm :	: 900 +	Tolerance	
rack travel mm	: 13.40 +	cm3/1000 strokes	: +~ 3.0
Tolerance mm	: +- 0.05 +	Check tolerance	
	+	cm3/1000s.	: +- 6.0
Rated speed rpm :	: 1000 +		
rack travel mm :	: 13.10 +	Aneroid pressure	
Tolerance mm :	: +- 0.10 +	hPa	: 1200
	+	Rated speed rom	: 750
Rated speed rpm :	: 750 +	Del. quantity	
rack travel mm :	: 12.80 +	cm3/1000 strokes	: 271.0
Tolerance mm :	: +- 0.10 +	Tolerance	
	+	cm3/1000 strokes	: 3.0
		Check tolerance	_
ANEROID/ALTITUDE	+	cm3/1000s.	: +- 6.0
COMPENSATOR TEST	+		
	+	Aneroid pressure	
	+	hPa	:
SETTING	+	Rated speed rpm	: 500
	+	Del. quantity	
Rated speed rpm :	900 +	cm3/1000 strokes	: 169.0
Pressure hPa :	1200 +	Tolerance	
rack travel mm :	13.40	cm3/1000 strokes	: + 1.0
Tolerance mm :	+- 0.05	Check tolerance	
	+	cm3/1000s.	: 4.0

BREAKAWAY

Rack travel in mm: 12.10
Rated speed rpm: 1045
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 210.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm 300 5.40 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes 32.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 0.8 cm3/1000 strokes : Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.02.96 Test oil : ISO 4113

Combination No. : 0 402 736 902

Injection pump

Pump designation : PES6P120A720/3LS7251

: -1 EP type number : 0 412 726 926

Governor

Governer design. : RQV300...1000PA962

: -17K

: 0 421 815 507 Governer no.

Cust. part No. : 51.11103-7506

Customer-spec. information

Customer : MAN : D2866 LF09 Motor

: 294.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : Tolerance bar : +- 0.1

Overflow quantity

min. L/h 165 Tolerance 1/h : +- 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

208.5 bar

Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 4.85 : + 0.05Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm : 13.00 Tolerance mm : \leftarrow 0.50

: 6-2-4-1-5-Firing order

: 3

: 0-60-120-180-240 Phasing

: -300

: + 0.30Tolerance

Check

tolerance 'NW : + 0.50

Start of delivery blocking

Tolerance : +- 0.50

Check

tolerance °NW : + - 0.75

Barrel no. 6

BASIC SETTING

Rated speed rpm 750

Rack travel in mm: 6.50

Tolerance mm	: +- 0.10	+
Del. quantity cm3/1000 strokes	: 107.0	GUIDE SLEE
Tolerance cm3/1000 strokes	; +- 8.0	Rated spee guide slee travel mm
Check tolerance cm3/1000s.	: +- 14.0	Tolerance Rated spee
Spreed		<pre>guide slee travel mm Tolerance</pre>
Tolerance cm3/1000 strokes	: 3.5	Rated spee
Check tolerance cm3/1000s.	: 6.0	travel mm Tolerance
Rated speed rpm	: 900	Rated spee guide slee
Rack travel in mm Tolerance mm	: 13.40 : ← 0.05	travel mm Tolerance
Del. quantity cm3/1000 strokes	: 279.0	Rated speed guide sleed travel mm
Tolerance cm3/1000 strokes	: + 1.0	GUIDE SLEE
Check tolerance cm3/1000s.	: + 4.0	Rated speed
Spreed Tolerance cm3/1000 strokes	: 10.0	Rack trave Tolerance
Check tolerance cm3/1000s.	: 14.0	FULL LOAD I
Rated speed rpm	: 300	+ Rated speed + Aneroid pro + hPa
Rack travel in mm Tolerance mm Del. quantity	: 5.40 : + 0.20	Del. quant cm3/1000 st Tolerance
cm3/1000 strokes Tolerance		cm3/1000 st
cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 6.0	+ cm3/1000s. + Spreed + Tolerance + cm3/1000 st
Tolerance cm3/1000 strokes Check tolerance	: 8.0	Check toler cm3/1000s.
cm3/1000s.	: 12.0	+
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	+ CONTROL LEV

GUIDE SLEEVE TRAN	/EL		
Rated speed rpm guide sleeve			
travel mm Tolerance mm	: 1.80 : + 0.20		
Rated speed rpm guide sleeve	: 1059		
travel mm Tolerance mm	: 8.73 : + 0.15		
Rated speed rpm guide sleeve			
travel mm Tolerance mm	: 6.83 : + 0.25		
Rated speed rpm guide sleeve	: 480		
travel mm Tolerance mm	: 3.79 : +- 0.25		
Rated speed rpm guide sleeve	: 1510		
travel mm Tolerance mm	: 13.50 : ← 0.50		
GUIDE SLEEVE POST	GUIDE SLEEVE POSITION		
Rated speed rpm	: 1290		
Rack travel in ma Tolerance man	12.10 : + 1.30		
FULL LOAD DELIVERY AT FULL LOAD STOP			
Rated speed rpm Aneroid pressure	: 900		
hPa Del. quantity	: 1200		
cm3/1000 strokes Tolerance	: 279.0		
cm3/1000 strokes Check tolerance	: + 1.0		
cm3/1000s.	: +- 4.0		
Spreed			
Tolerance cm3/1000 strokes	: 10.0		
Tolerance	: 10.0 : 14.0		

		1.	SETTING	
control lever position degree tolerance degree		 	Rated speed rpm Pressure hPa rack travel mm	: 1200
RATED SPEED		Ŧ	Tolerance mm	: +- 0.05
rack travel mm Rated speed rpm Tolerance 1/min	: 1045	‡	MEASUREMENT Pressure hPa Rated speed rpm	: – : 900
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1215 : + 15	† † +	rack travel mm Tolerance mm	: 9.20 : + 0.10
rack travel mm Tolerance mm Rated speed rpm	: ← 0.50	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 220 : 9.45 : +- 0.05
LOW IDLE		+	Pressure hPa rack travel mm Tolerance mm	: 720 : 11.90 : +- 0.20
control lever position degree tolerance degree		1	START CUT-OUT	: > 100
Testing:		+	Rated speed rpm Rated speed rpm	: < 240
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: 5.40 : +- 0.10	+	Check speed 1/min Check speed 1/min	
,	: > 7.20	+	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 330	+ 1	Aneroid pressure hPa Rated speed rpm	: 1200 : 1000
TORQUE CONTROL		+ !	Del. quantity cm3/1000 strokes	
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.40 : + 0.05	+	Tolerance cm3/1000 strokes Check tolerance	
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: 1000 : 13.10 : +- 0.10 : 750	+ !	cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity	
rack travel mm Tolerance mm	: 12.80 : + 0.10	+ 7	cm3/1000 strokes Tolerance cm3/1000 strokes	
ANEROID/ALTITUDE COMPENSATOR TEST		‡ '	Check tolerance cm3/1000s.	: +- 6.0
			Aneroid pressure hPa	: -

Rated speed rpm 500 Del. quantity 169.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 BREAKAWAY Rack travel in mm: 12.10 Rated speed rpm 1045 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 15.0Check tolerance cm3/1000s. : +- 19.0 LOW IDLE Rated speed rpm 300 rack travel mm 5.40 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26.07.95 Test oil : ISO 4113

Combination No. : 0 402 746 601

Injection pump

Pump designation : PES6P120A720RS7389 EP type number : 0 412 726 944

Governor

Governer design. : RQ275/1050PA1021-4

Governer no. : 0 421 801 795

Cust. part No. :

Customer-spec. information

Customer : IVECO-FRANCE Motor : 8460.41E.711

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.5 Tolerance bar : +- 0.1

Overflow quantity

min. L/h : 145 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.15
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Check

tolerance *NW : +- 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 10.95
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 171.0	+ Check tolerance cm3/1000S. : 9.0
Tolerance cm3/1000 strokes : + 1.0	RATED SPEED
Check tolerance cm3/1000s. ; +- 4.0	rack travel mm : 9.90 Rated speed rpm : 1103 Tolerance 1/min : + 8
Spreed Tolerance cm3/1000 strokes : 5.0	rack travel mm : 4.00 Rated speed rpm : 1165 Tolerance 1/min : +- 15
Check tolerance cm3/1000s. 9.0	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 275 Rack travel in mm : 4.60	Rated speed rpm : 1350
Tolerance mm : + 0.20 - Del. quantity - cm3/1000 strokes : 23.0 -	LOW IDLE
Tolerance - 3.0 - Check tolerance	control lever position degree : 73.0
cm3/1000s. : +- 6.0 Spreed	tolerance degree : +- 4.0
Tolerance - cm3/1000 strokes : 8.0 - Check tolerance -	Testing: Rated speed rpm : 275
cm3/1000s. : 12.0 -	rack travel mm : 4.60 Tolerance mm : +- 0.10
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 2.00 Rated speed rpm : 356 Tolerance 1/min : +- 20
GUIDE SLEEVE POSITION -	Rated speed rpm : 175
Rated speed rpm : 600	CRT mm min. : > 6.10
Rack travel in mm : 20.00 - Tolerance mm : + 0.80 -	TORQUE CONTROL
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1050 rack travel mm : 10.95 Tolerance mm : +- 0.05
Rated speed rpm : 1050 - Aneroid pressure	Rated speed rpm : 550 rack travel mm : 11.00
hPa : 900 - Del. quantity -	- Tolerance mm : + 0.10
cm3/1000 strokes : 171.0 - Tolerance - cm3/1000 strokes : + 1.0 -	- ANEROID/ALTITUDE COMPENSATOR TEST
Check tolerance cm3/1000s. : + 4.0 Spreed	SETTING
Tolerance	Rated speed rpm : 500

Pressure hPa rack travel mm Tolerance mm	: 900 : 10.95 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	500 8.70 + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 220 : 9.30 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 340 : 10.35 : + 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 195
Check speed 1/min Check	: > 80
speed 1/min	: < 215
FUEL DELIVERY CHA	ARACTERISTICS
hPa Rated speed rpm Del. quantity	: 900 : 550
cm3/1000 strokes Tolerance	: 182.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure	: -
Rated speed rpm Del. quantity	: 500 : 107.0
cm3/1000 strokes Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm	: 9.90

Rated speed rpm Tolerance 1/min	: 1103 : +- 8
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity	: 100
cm3/1000 strokes Tolerance	: 170.0
cm3/1000 strokes Check tolerance	: + 15.0
cm3/1000s.	: +- 19.0
LOW IDLE	
Rated speed rpm rack travel mm	: 275 : 4.60
Tolerance mm Del. quantity	: +- 0.20
cm3/1000 strokes Tolerance	: 23.0
cm3/1000 strokes Check tolerance	: + 3.0
cm3/1000s. Spreed Tolerance	: +- 6.0
cm3/1000 strokes	: 8.0
Check tolerance	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 402 746 606

Injection pump

Pump designation : PES6P110A720RS7406 EP type number : 0 412 716 810

Governor

Governer design. : RQV300...1050PA1090

: -1K

Governer no. : 0 421 815 497

Cust. part No. : 9279607

Customer—spec. information
Customer : LIEBHERR
Motor : D 926 TI-E
Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 125 Tolerance L/h : +- 20.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance "NW : + 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 13.80
Tolerance mm : + 0.05

Totel arice man

Del. quantity cm3/1000 strokes : 205.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 1180
Spreed Tolerance cm3/1000 strokes : 5.0	Rack travel in mm : 12.80 Tolerance mm : +- 2.00
Check tolerance cm3/1000s. 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 350	+ Rated speed rpm : 1050 + Aneroid pressure
Rack travel in mm : 5.40	+ hPa : 1600
Rack travel in mm : 5.40 Tolerance mm : +- 0.20	+ Del. quantity + cm3/1000 strokes : 205.0
Del. quantity	Tolerance
cm3/1000 strokes : 25.0	+ cm3/1000 strokes : + 1.0
Tolerance cm3/1000 strokes : +- 3.0	+ Check tolerance + cm3/1000s, :+- 4.0
Check tolerance	Spreed
cm3/1000s. : +- 6.0	+ Tolerance
Spreed	+ cm3/1000 strokes : 5.0
Tolerance cm3/1000 strokes : 6.0	+ Check tolerance + cm3/1000s. : 9.0
Check tolerance	T (M3/10003 9.0
cm3/1000s. : 10.0	+
	CONTROL LEVER
(B) SETTING OF INJECTION PUMP	†
WITH GOVERNOR	+ control lever + position degree : 119.0
	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 350	+
guide sleeve	+ rack travel mm : 12.80
travel mm : 1.86 Tolerance mm : +- 0.20	+ Rated speed rpm : 1090 + Tolerance 1/min : +- 5
Tolerance mm : +- 0.20	+ Tolerance 1/min : +- 5
Rated speed rpm : 1117	rack travel mm : 4.00
guide steeve	+ Rated speed rpm : 1195
travel mm : 10.27	† Tolerance 1/min : + 15
Tolerance mm : +- 0.15	+ rack travel mm : 0.50
Rated speed rpm : 756	+ Tolerance mm : + 0.50
guide sleeve	+ Rated speed rpm : 1300
travel mm : 6.17	+
Tolerance mm : +- 0.25	+
	1
Rated speed rom : 480	LOW IDLE
Rated speed rpm : 480 guide sleeve	LOW IDLE
guide sleeve travel mm : 3.75	‡
guide sleeve	control lever
guide sleeve travel mm : 3.75 Tolerance mm : + 0.25	control lever position degree : 74.0
guide sleeve travel mm : 3.75 Tolerance mm : + 0.25 Rated speed rpm : 1330	control lever
guide sleeve travel mm : 3.75 Tolerance mm : + 0.25 Rated speed rpm : 1330 guide sleeve	control lever position degree : 74.0 tolerance degree : +- 4.0
guide sleeve travel mm : 3.75 Tolerance mm : + 0.25 Rated speed rpm : 1330	control lever position degree : 74.0
guide sleeve travel mm : 3.75 Tolerance mm : + 0.25 Rated speed rpm : 1330 guide sleeve travel mm : 13.50	control lever position degree : 74.0 tolerance degree : +- 4.0 Testing: Rated speed rpm : 350
guide sleeve travel mm : 3.75 Tolerance mm : + 0.25 Rated speed rpm : 1330 guide sleeve travel mm : 13.50	control lever position degree : 74.0 tolerance degree : +- 4.0 Testing:

Rated speed rpm	: 250
CRT mm min.	: > 7.40
Rated speed rpm	: 420
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 13.80 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.35 : ← 0.15
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.85 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 600 : 11.80 : ← 0.15
Rated speed rpm rack travel mm Tolerance mm	: 500 : 10.95 : +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1050 : 1600 : 13.80 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1050 : 10.55 : + 0.15
Rated speed rpm	: 1050
Pressure hPa rack travel mm Tolerance mm	: 1020 : 13.00 : + 0.05
Pressure hPa	: 740

rack travel mm : 11.45 Tolerance mm : +- 0.10	
FUEL DELIVERY CHARACTERISTICS	
Aneroid pressure hPa : 1600 Rated speed rpm : 800 Del. quantity cm3/1000 strokes : 207.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0	
Aneroid pressure hPa : 1600 Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 194.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Aneroid pressure hPa : -	
Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 184.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	
Rack travel in mm : 12.80 Rated speed rpm : 1090 Tolerance 1/min : +- 5	
STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 10.55 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 175.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0	

LOW IDLE

Rated speed rpm	:	350
rack travel mm	:	5.40
Tolerance mm	: +-	0.20
Del. quantity		
cm3/1000 strokes	;	25.0
Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		. 5
cm3/1000s.	: +	6.0
Spreed		
Tolerance		. 5
cm3/1000 strokes	:	6.0
Check tolerance		40.0
cm3/1000s.	;	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 05.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 746 606A

Injection pump

Pump designation : PES6P110A720RS7406 EP type number : 0 412 716 810

Governor

Governer design. : RQV300...1050PA1090

: -1K

: 0 421 815 497 Governer no.

Cust. part No. : 9279607

Customer-spec. information : LIEBHERR Customer Motor : D 926 TI-E Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. L/h : 125 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.65
Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance *NW : + 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 13.80 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 205.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 1180
Spreed Tolerance cm3/1000 strokes : 5.0	Rack travel in mm : 12.80 Tolerance mm : +- 2.00
Check tolerance cm3/1000s. : 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 350	Rated speed rpm : 1050 Aneroid pressure
Rack travel in mm : 5.40	+ hPa : 1600 + Del. quantity
Tolerance mm : +- 0.20 Del. quantity	+ cm3/1000 strokes : 205.0 + Tolerance
cm3/1000 strokes : 25.0 Tolerance	t cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : +- 3.0 Check tolerance	+ cm3/1000s. : + 4.0 + Spreed
cm3/1000S. : +- 6.0 Spreed	Tolerance cm3/1000 strokes : 5.0
Tolerance cm3/1000 strokes : 6.0	Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 10.0	
10.0	CONTROL LEVER
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 119.0 tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 350 guide sleeve	rack travel mm : 12.80
travel mm : 1.86	Rated speed rpm : 1090 Tolerance 1/min : + 5
	+
Rated speed rpm : 1102 guide sleeve	+ rack travel mm : 4.00 + Rated speed rpm : 1195
travel mm : 10.05 Tolerance mm : + 0.15	+ Tolerance 1/min : + 15
Rated speed rpm : 749 guide sleeve	+ rack travel mm : 0.50 + Tolerance mm : + 0.50 + Rated speed rpm : 1300
travel mm : 6.11 Tolerance mm : +- 0.25	1
	LOW IDLE
Rated speed rpm : 480 guide sleeve	LOW IDLE
travel mm : 3.75 Tolerance mm : +- 0.25	control lever
Rated speed rpm : 1330 guide sleeve	+ position degree : 74.0 + tolerance degree : +- 4.0 +
travel mm : 13.50 Tolerance mm : +- 0.50	Testing:
	Rated speed rpm : 350 rack travel mm : 5.40
GUIDE SLEEVE POSITION	rack travel mm : 5.40 Tolerance mm : + 0.10

Rated speed rpm	: 250		11.45 0.10
CRT man min.	: > 7.40	<u> </u>	
Rated speed rpm	: 420	FUEL DELIVERY CHARACTERS	ISTICS
TORQUE CONTROL Rated speed rpm rack travel mm			500 300
Tolerance mm			207.0
Rated speed rpm rack travel mm Tolerance mm	: 950 : 13.65 : + 0.15	cm3/1000 strokes : +- Check tolerance cm3/1000s. : +-	3.0 6.0
Rated speed rpm rack travel mm Tolerance mm			500 500
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.85 : + 0.10	cm3/1000 strokes : 1 Tolerance cm3/1000 strokes : +-	3.0
Rated speed rpm rack travel mm Tolerance mm	: 600 : 11.80 : +- 0.15	theck tolerance cm3/1000s. : +- Aneroid pressure	6.0
Rated speed rpm rack travel mm Tolerance mm	: 10.95	hPa : Rated speed rpm : 5 Del. quantity cm3/1000 strokes : 1	- 500 84.0
ANEROID/ALTITUDE COMPENSATOR TEST		Tolerance cm3/1000 strokes : + Check tolerance cm3/1000s. : + Spreed	1.0 4.0
SETTING Rated speed rpm Pressure hPa	: 1050 : 1600	Tolerance cm3/1000 strokes : Check tolerance	8.0 12.0
rack travel mm Tolerance mm	: 13.80 : + 0.05	BREAKAWAY	
MEASUREMENT Pressure hPa		† Rack travel in mm : 1 + Rated speed rpm : 10	2.80 90
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 10.55 : +- 0.15	Tolerance 1/min : +-	5
Rated speed rpm	: 1050	STARTING FUEL DELIVERY	
Pressure hPa rack travel mm Tolerance mm	: 1020 : 13.00 : + 0.05		00 0.55 0.20
Pressure hPa	: 740		75.0

Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0

LOW IDLE

350 Rated speed rpm rack travel mm 5.40 +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 10.11.94 Edition Test oil : ISO 4113

Combination No. : 0 402 746 997

Injection pump

Pump designation : PES6P12DA72DRS7224

: -2

EP type number : 0 412 726 893

Governor

Governer design. : RQV275...1100PA975

: -3K

Governer no. : 0 421 815 350

Cust. part No.

Customer-spec. information

Customer : IVECO-AIFO

: 8361 SRM 40.10 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.5
Tolerance bar : +- 0.1

Overflow quantity

140 min. L/h min. l/h : 140 Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar 208.5 : +- 1.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.15 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300 : +- 0.30

: +- 0.50

Check

Tolerance

tolerance *NW

Start of delivery mark

Check

tolerance °NW : +- 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.75 Tolerance mm : + 0.05

D02

Del. quantity cm3/1000 strokes : 218.0	guide steeve travel mm : 13.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : + 1.0	CUTOR OF ERIE POOTTAN
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : +- 4.0	Rated speed rpm : 1210
Spreed	Rack travel in mm: 10.70
Tolerance cm3/1000 strokes : 5.0	Tolerance mm : +- 1.30
Check tolerance cm3/1000s. 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Dated around from 1 275	Rated speed rpm : 1100
Rated speed rpm : 275	Aneroid pressure hPa : 1200
Rack travel in mm: 5.50	Del. quantity
Tolerance mm : + 0.20 + Del. quantity	cm3/1000 strokes : 218.0 Tolerance
cm3/1000 strokes : 26.0	cm3/1000 strokes : +- 1.0
Tolerance	Check tolerance
cm3/1000 strokes : + 3.0 +	cm3/1000s. : +- 4.0
Check tolerance + 6.0 +	Spreed Tolerance
Spreed	cm3/1000 strokes : 5.0
Tolerance	Check tolerance
cm3/1000 strokes : 8.0 + Check tolerance	cm3/1000s. : 9.0
cm3/1000s. : 12.0	
+	
CD) CETTANC OF THE POTTON DUMP	CONTROL LEVER
(B) SETTING OF INJECTION PUMP +	control lever
42117 5572.11151	position degree : 120.0
	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 275	NATED OF EED
guide sleeve +	rack travel mm : 11.70
travel mm : 2.00 +	Rated speed rpm : 1145
Tolerance mm : + 0.20	Tolerance 1/min : +- 5
Rated speed rpm : 1150	rack travel mm : 4.00
guide steeve +	Rated speed rpm : 1235
travel mm : 10.45 + Tolerance mm : + 0.15 +	Tolerance 1/min : +- 15
roterance may	rack travel mm : 0.50
Rated speed rpm : 764	Tolerance mm : +- 0.50 Rated speed rpm : 1350
guide sleeve + travel mm : 6.24 +	Rated speed rpm : 1350
travel mm : 6.24 + Tolerance mm : + 0.25 +	
+	
Rated speed rpm : 430 + guide sleeve +	LOW IDLE
travel mm : 3.63	and a Library
Tolerance mm : +- 0.25	control lever position degree : 73.0
Rated speed rpm : 1350	tolerance degree : +- 4.0
007	

		4
Testing:		Pressure hPa : 750 rack travel mm : 11.35
Rated speed rpm	: 275	Tolerance mm : + 0.05
rack travel mm	5.50	1
rack travel mm Tolerance mm	: +- 0.10	
Rated speed rpm		START CUT-OUT
		+ Rated speed rpm :> 170
CRT mm min.	: > 6.70	Rated speed rpm : < 220
Rated speed rpm	: 335	+ Check
		speed 1/min : > 150
TORQUE CONTROL		speed 1/min : < 240
Rated speed rpm	: 1100	
rack travel mm	12.75	↓ FUEL DELIVERY CHARACTERISTICS
Tolerance mm	: +- 0.05	+
Dated aread are		+ Aneroid pressure
Rated speed rpm	: YUU : 12.75	+ hPa : 1200 + Rated speed rpm : 900
Rated speed rpm rack travel mm Tolerance mm	· 12.13	+ Rated speed rpm : 900 + Del. quantity
TO CET GLICE IN		+ cm3/1000 strokes : 228.0
Rated speed rpm	: 500	Tolerance
rack travel mm	11.80	cm3/1000 strokes : +- 3.0
Tolerance mm	: + 0.10	- Check tolerance
		+ cm3/1000s. : +- 6.0
Rated speed rpm	: 700	+
rack travel mm	: 12.50	+ Aneroid pressure
Tolerance mm	: +- 0.10	+ hPa : 1200
		Rated speed rpm : 500
Rated speed rpm	: 350	+ Del. quantity
rack travel mm Tolerance mm	: 11.40	+ cm3/1000 strokes : 243.0
iolerance mm	: +- 0.20	+ Tolerance
		+ cm3/1000 strokes : +- 3.0
ANEROID/ALTITUDE		+ cm3/1000s. : +- 6.0
COMPENSATOR TEST		T (11157 10000).
TOTAL CHOPHICAL FEOT		Aneroid pressure
		+ hPa : -
SETTING		Rated speed rpm : 500
		+ Del. quantity
Rated speed rpm	: 900	+ cm3/1000 strokes : 120.0
Pressure hPa	: 1200	+ Tolerance
rack travel mm	: 12.75	t cm3/1000 strokes : +- 1.0
Tolerance mm	: + 0.05	+ Check tolerance
MEASUREMENT		+ cm3/1000s. : +- 4.0
Dunney ma hDn		DDEALALIAY
Pressure hPa	900	+ BREAKAWAY
Rated speed rpm rack travel mm	: 7.70	I
Tolerance mm	: +- 0.20	Rack travel in mm: 11.70
(U) COLOR TO CHIMI		Rated speed rpm : 1145
Rated speed rpm	: 900	Tolerance 1/min : +- 5
Pressure hPa	: 410	I
rack travel mm	: 8.80	
Tolerance mm	: +- 0.20	T STARTING FUEL DELIVERY
. U CUI GI IU C IIIII		WITH THE TWEE WHILE WHILE THE

Rated speed rpm : 10Ū Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

cm3/1000s.

Rated speed rpm 275 5,50 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 26.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance

12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 402 796 820

Injection pump

Pump designation : PES6P120A720LS7410 EP type number : 0 412 726 957

Governor

Governer design. : RE30

Governer no. : 0 421 890 038

Cust. part No. : 0260744902

Customer-spec. information Customer: MTU Motor: 6-R-183 Power KW: 441.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5
Tolerance bar : +- 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 1000

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05

Prestroke mm : 4.05
Tolerance mm : + 0.05
Tolerance mm : + 0.05
Check

tolerance mm

Check tolerance mm : + 0.10

Rack travel in mm: 20.00

Rack travel in mm : 20.50
Tolerance mm : + 1.00
Tolerance mm : + 0.50

Firing order : 6-2-4-1-5-

: + - 0.10

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance "NW : + 0.50

Start of delivery mark

Barrel no. : 6

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V

TESTING & SETTING RACK TRAVEL SENSOR POSITION

0 Engine speed min-1:

Setting point (P, R and H pump)

Uact V 3.100 CRT mm 13.00 Tolerance mm : +/- 0.05

Check

tolerance mm : +/- 0.10

Check value (P, R and H pump)

1.700 Uact V : CRT mm 6.15 : +/- 0.25 Tolerance mm Check

: +/- 0.30 tolerance mm

Setting point (amuq M)

3.100 Uact V CRT mm 12.50 : +/- 0.05 Tolerance mm

Check

tolerance mm : +/- 0.10

Check value (qmuq M)

Uact V 1.700 CRT mm 5.50 : +/- 0.25 Tolerance mm

Check

tolerance mm : +/- 0.30

Stop position

Uact V : Value with

> deenergised adjusting magnet and control rod in

stop position.

CRT mm 0.75 : +/- 0.25 Tolerance mm

Check

tolerance mm : +/- 0.35

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: 60 Amplitude V 1.4 Tolerance V : +/- 0.6

Check

tolerance V : +/- 1.20

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

Rated speed rpm : 1150 Uact V 3.500

Del. quantity

cm3/1000 strokes : 362.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s.4.0

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 10.0

FUEL DELIVERY CHARACTERISTICS

750 Rated speed rpm 3.500 Uact V

Del. quantity

cm3/1000 strokes : 428.0

Tolerance

cm3/1000 strokes 4.0

Check tolerance

cm3/1000s. 6.0

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.02.95 Test oil : ISO 4113

Combination No. : 0 402 846 301

Injection pump

Pump designation : PE6P12OA32ORS8508 EP type number : 0 412 826 201

Governor

Governer design. : RQV275...1000PA1099K

Governer no. : 0 421 815 983

Cust. part No. : 1287579/4

Customer-spec. information
Customer : DAF
Motor : WS 315 M
Power KW : 315.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 180 Tolerance L/h : +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x Length mm : 600

-

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.35 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance "NW : + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 13.35 Tolerance mm : +- 0.05

	<u> </u>
Del. quantity +	guide sleeve
cm3/1000 strokes : 321.5	travel mm : 3.08
<u> </u>	Tolerance mm : +- 0.25
Tolerance +	
cm3/1000 strokes : + 1.0 +	Rated speed rpm : 400
<u> </u>	guide sleeve
Check tolerance	travel mm : 3.92
cm3/1000s. : + 5.0 +	Tolerance mm : + 0.25
Spreed	Rated speed rpm : 1310
Tolerance	guide sleeve
cm3/1000 strokes : 6.0	travel mm : 13.50
tm3/1000 3t1 0kes : 0.0	Tolerance mm : +- 0.50
Check tolerance	Total differ light . Total
cm3/1000s. : 12.0	
cm3/10005. : 12.0	CUIDE OF EEUE DOCUTION
275	GUIDE SLEEVE POSITION
Rated speed rpm : 275	2.1.1
†	Rated speed rpm : 1130
Rack travel in mm: 5.80	m 1
Tolerance mm : + 0.10	Rack travel in mm : 12.70
Del. quantity +	Tolerance mm : +- 1.30
cm3/1000 strokes : 13.0	
Tolerance +	
cm3/1000 strokes : + 3.0 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance +	
cm3/1000s. : +- 6.0 $+$	Rated speed rpm : 980
Spreed	Aneroid pressure
Tolerance	hPa : -
cm3/1000 strokes : 8.0	Del. quantity
Check tolerance	cm3/1000 strokes : 321.5
cm3/1000s. : 13.0	Tolerance
13.0	cm3/1000 strokes : +- 1.0
\mathbf{I}	Check tolerance
(B) SETTING OF INJECTION PUMP	cm3/1000s. : +- 5.0
WITH GOVERNOR	Spreed
WITH GOVERNOR	Tolerance
Ţ.	cm3/1000 strokes : 6.0
CUIDE OF FELE TRAVEL	
GUIDE SLEEVE TRAVEL	Check tolerance
275	cm3/1000s. : 12.0
Rated speed rpm : 275	
guide sleeve	
travel mm : 2.14	
Tolerance mm : + 0.15	CONTROL LEVER
†	
Rated speed rpm : 1050 +	control lever
guide sleeve +	position degree : 120.0
travel mm : 9.89	tolerance degree : +- 4.0
Tolerance mm : + 0.20 +	
+	RATED SPEED
Rated speed rpm : 692 +	
guide sleeve +	rack travel mm : 12.35
travel mm : 6.45 +	Rated speed rpm : 1037
Tolerance mm : + 0.25 +	Tolerance 1/min : +- 5
+	
Rated speed rpm : 284	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1150
travel mm : 2.27	Tolerance 1/min : + 15
Tolerance mm : +- 0.25	
TOSE GIVE HALL	rack travel mm : 0.70
Rated speed rpm : 334	Tolerance mm : +- 0.70
	TOTECANIE IIII
Rateu speed (piii : 554	Toterance nen . +- 0.70

Rated speed rpm	: 1275
LOW IDLE	
control lever position degree tolerance degree	: 76.0 : +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 5.80 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 405 : +- 20
Rated speed rpm	: 175
CRT mm min.	: > 8.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 980 : 13.35 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.75 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.05 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.00 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 400 : 11.95 : +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 980 : 1500 : 13.35 : ← 0.05

MEASUREMENT

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	; ; ;	980 8.90 0.10
Rated speed rpm	:	980
Pressure hPa rack travel mm Tolerance mm	: +-	750 12.25 0.05
Pressure hPa rack travel mm Tolerance mm	: : : +-	420 10.00 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure	
hPa	: -
Rated speed rpm	: 750
Del. quantity	
cm3/1000 strokes	: 316.0
Tolerance	
cm3/1000 strokes	: +- 2.0
Check tolerance	
cm3/1000s.	: +- 6.0
Spreed	
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	
cm3/1000s.	: 13.0
Aneroid pressure	
hPa	; -
Rated speed rpm	: 600
Del. quantity	
cm3/1000 strokes	: 188.0
Tolerance	
cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: +- 5.0

BREAKAWAY

Rack travel in mm : 12.35
Rated speed rpm : 1037
Tolerance 1/min : + 5

LOW IDLE

Rated speed rpm	:	275	
rack travel mm	;	5.80	
Tolerance mm	: +-	0.10	
Del. quantity			
cm3/1000 strokes	:	13.0	
Tolerance			
cm3/1000 strokes	: +-	3.0	
Check tolerance			
cm3/1000s.	. 4	6.0	
Spreed Tolerance			
cm3/1000 strokes	•	8.0	
Check tolerance	•	0.0	
cm3/1000s.	•	13.0	
CIII 7 10000 .	•	13.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.09.95 Test oil : ISO 4113

Combination No. : 0 402 896 004

Injection pump

Pump designation : PE6P12OA72ORS8010 EP type number : 0 412 826 014

Governor

Governer design. : RE30

Governer no. : 0 421 890 009

Cust. part No. : 1328145

Customer-spec. information Customer : SCANIA Motor : DSC1127

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Tolerance l/h: \leftarrow 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS No basic setting. Setting of constant delivery under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85

Check tolerance mm : + 0.10

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Rack travel in mm: 10.50
Tolerance mm: + 1.50
Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Barrel no. Vibration damber (RoBo diaphragm) : 3.1 (B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR POSITION Engine speed min-1: Setting point (P, R and H pump) 3,100 Uact V CRT mm 13.00 : +/- 0.05 Tolerance mm Check : +/- 0.10 tolerance mm Check value (P, R and H pump) Uact V 1,700 CRT mm 6.15 Tolerance mm : +/- 0.25 Check : +/- 0.30 tolerance mm Setting point (qmuq M) Uact V 3.100 CRT mm 12.50 Tolerance mm : +/~ 0.05 Check : +/- 0.10 tolerance mm Check value (qmuq M) Uact V 1.700 5.50 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30tolerance mm Stop position : Value with Uact V

deenergised adjusting magnet

and control rod in stop position. CRT mm 0.75 Tolerance mm : +/- 0.25 Check : +/- 0.35 tolerance mm ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps) Test with control rod in stop position Engine speed min-1: 60 Amplitude V 1.4 Tolerance V : +/- 0.6 Check : +/- 1.20 tolerance V Engine speed min-1: 600 Difference Amplitude to Amplitude V : max.1.4 (C) INJECTION PUMP WITH POSITIONER TEST POINT V1 Rated speed rpm 700 Uact V 3.500 Del. quantity cm3/1000 strokes : 332.0 Tolerance cm3/1000 strokes : +- 1.0Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0 FUEL DELIVERY CHARACTERISTICS Rated speed rpm 900 Uact V 3.500 Del. quantity cm3/1000 strokes : 301.0 Tolerance cm3/1000 strokes : +-

6.0

Check tolerance

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 15.09.95

Test oil

: ISO 4113

Combination No. : 0 402 896 013

Injection pump

Pump designation : PE6P120A720RS8025

EP type number : 0 412 826 026

Governor

Governer design. : RE30

: 0 421 890 019 Governer no.

Cust. part No. : 1361124

Customer-spec. information : SCANIA Customer

Motor

: DSC1124

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 : +- 2.0 Tolerance °C

: 1 417 413 025 Overflow valve

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 240 Tolerance l/h : + 20.0 240

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm :

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 2.85

Prestroke mm : 2.85 : + 0.05Tolerance mm

Tolerance mm : + 0.05Check

tolerance mm

Check tolerance mm : +- 0.10

Rack travel in mm: 10.50

Rack travel in mm: 10.50 Tolerance mm : + 1.50 : +- 1.50

Tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

: + - 0.10

Tolerance : +- 0.30

Check

: +- 0.50 tolerance °NW

Start of delivery mark

Tolerance : \leftarrow 0.50

Check tolerance *NW	; +-	0.75	
Barrel no.	:	1	
Vibration damper (RoBo diaphragm)	: 3.1		
(B) POSITIONER TE Warm-up time: 3 m n=600 min-1, Uact	inutes		
TESTING & SETTING POSITION	RACK	TRAVEL	SENSOR
Engine speed min-	1:	0	
Setting point (P, R and H pump)			
Uact V CRT mm Tolerance mm Check tolerance mm	: : +/- : +/-		
Check value (P, R and H pump)			
Uact V CRT mm Tolerance mm Check tolerance mm			
Setting point (M pump)			
Uact V CRT mm Tolerance mm Check tolerance mm	: : +/- : +/-		
Check value (M pump)			
Uact V CRT mm Tolerance mm Check tolerance mm	: : +/- : +/-		
Stop position			

```
Uact V
                  : Value with
            deenergised adjusting magnet
                    and control rod in
                    stop position.
                        0.75
CRT mm
Tolerance mm
                  : +/- 0.25
Check
                  : +/- 0.35
tolerance mm
ENGINE-SPEED SENSOR
(All P and R pumps not
H and M pumps)
Test with control rod
in stop position
Engine speed min-1:
Amplitude V
                        1.4
Tolerance V
                  : +/- 0.6
Check
tolerance V
                  : +/- 1.20
Engine speed min-1:
                      600
Difference
Amplitude to
Amplitude V
                 : max.1.4
(C) INJECTION PUMP WITH POSITIONER
TEST POINT V1
Rated speed rpm
                       700
                       3.500
Uact V
Del. quantity
cm3/1000 strokes :
                       340.0
Tolerance
cm3/1000 strokes : +-
                         1.0
Check tolerance
cm3/1000s.
                         4.0
Spreed
Tolerance
cm3/1000 strokes :
                         8.0
Check tolerance
cm3/1000s.
                        12.0
FUEL DELIVERY CHARACTERISTICS
                       900
Rated speed rpm
Uact V
                       3.500
Del. quantity
cm3/1000 strokes :
                       309.0
Tolerance
cm3/1000 strokes : +-
                         4.0
Check tolerance
```

: +- 6.0

cm3/1000S.

STARTING FUEL DELIVERY

Rated speed rpm 100 Uact V 3.000

Del. quantity cm3/1000 strokes : 245.0

Tolerance cm3/1000 strokes : +- 20.0

Check tolerance cm3/1000s.

: +- 24.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.03.96 Test oil : ISO 4113

Combination No. : 0 403 246 053

Injection pump

Pump designation : PES6MW100/720RS1527

EP type number : 0 413 206 026

Governor

Governer design. : RQV300...1300MW132

: -20

Governer no. : 0 420 083 339

Cust. part No. : 0260749402

Customer-spec. information : MB-NFZ Customer : 0M366LA Motor Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar 208.5 Tolerance bar 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0 Test pressure bar :

Prestroke mm : 4.55 : + 0.05Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50 Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm: 14.40 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed Tolerance

cm3/1000 strokes : 4.0

D18

	+ Rated speed rpm : 1480
Check tolerance cm3/1000s. : 7.5	Rack travel in mm: 10.00 Tolerance mm: +- 2.70
Rated speed rpm : 300	Total italian
Rack travel in mm : 4.00 Tolerance mm : + 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 12.0	Rated speed rpm : 1300 Aneroid pressure
Tolerance cm3/1000 strokes : +- 2.0	+ hPa : 1000 + Del. quantity
Check tolerance cm3/1000s. : +- 4.5	+ cm3/1000 strokes : 130.0 + Tolerance
Spreed Tolerance	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : 3.5 Check tolerance	cm3/1000s. : +- 4.0 + Spreed
cm3/1000s. : 5.5	Tolerance cm3/1000 strokes : 4.0
(B) SETTING OF INJECTION PUMP	+ Check tolerance + cm3/1000s. : 7.5
WITH GOVERNOR	‡
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300 guide sleeve	control lever position degree : 120.0
travel mm : 1.01	tolerance degree : +- 4.0
Tolerance mm : +- 0.20	RATED SPEED
Rated speed rpm : 1354 guide sleeve	+ + rack travel mm : 13.40
travel mm : 6.71	Rated speed rpm : 1345
Tolerance mm : +- 0.15	+ Tolerance 1/min : +- 5
Rated speed rpm : 1090 guide sleeve	rack travel mm : 4.00 Rated speed rpm : 1495
travel mm : 4.70	Tolerance 1/min : + 15
Tolerance mm : + 0.25	† rack travel mm : 0.50
Rated speed rpm : 690 guide sleeve	Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm : 2.97	+
Tolerance mm : +- 0.25	
Rated speed rpm : 1683 guide sleeve	LOW IDLE
travel mm : 12.00	}
Tolerance mm : +- 0.25	<pre>control lever position degree : 74.0</pre>
Rated speed rpm : 1780 guide sleeve	tolerance degree : +- 4.0
travel mm : 13.50	+ Testing:
Tolerance mm : +- 0.50	Rated speed rpm : 300
GUIDE SLEEVE POSITION	rack travel mm : 4.00 Tolerance mm : + 0.10
	ı

Rated speed rpm	: 200	Del. quantity
CRT mm min.	• > 450	+ cm3/1000 strokes : 130.0 + Tolerance
COL HER BELLS	, , 4,50	cm3/1000 strokes : + 2.0
		Charle tallaments
TORQUE CONTROL		+ cm3/1000s. : +- 5.0
	4705	+ Spreed
Rated speed rpm	: 1300	† Tolerance
rack travel mm Tolerance mm	14.40	+ cm3/1000 strokes : 6.0 + Check tolerance
		- cm3/1000s. : 9.0
Rated speed rpm rack travel mm Tolerance mm	: 750	1 2.0
rack travel mm	: 14.40	Aneroid pressure
rolerance mm	: ← 0.10	+ hPa : -
		Rated speed rpm : 500
ANDOTE /ALTON	• ••••• ••••••••••••••••••••••••••••••	Del. quantity
ANEROID/ALTITUDE		- cm3/1000 strokes : 43.0
COMPENSATOR TEST		+ Tolerance + cm3/1000 strokes : +- 1.0
		- Check tolerance
SETTING		+ cm3/1000s. : + 3.0
VU1 1411U		cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 43.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
Rated speed rpm Pressure hPa	: 500	
Pressure hPa	: 1000	+ BREAKAWAY
rack travel mm Tolerance mm	: 14.40	†
Tolerance mm	: +- 0.10	+
AST A OI INTERNATIO		Rack travel in mm: 13.40
MEASUREMENT		Rated speed rpm : 1345 Tolerance 1/min : +- 5
Pressure hPa	: -	Toterance that the s
Rated speed rpm	500	$oldsymbol{ol}oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}ol}}}}}}}}}}}}}}}$
Tolerance mm	: +- 0.10	
		→ STARTING FUEL DELIVERY
Rated speed rpm	: 500	+
_ ,_	400	+ Rated speed rpm : 100
Pressure hPa		+ Del. quantity
rack travel mm Tolerance mm		+ cm3/1000 strokes : 160.0 + Tolerance
ioterance mm	, 0,10	+ cm3/1000 strokes : + 5.0
Pressure hPa	: 300	+ Check tolerance
rack travel mm	1.50	+ cm3/1000s. : + 8.0
Tolerance mm	: + 0.10	+
		+
PTART CUT OUT		
START CUT-OUT		LOW IDLE
Rated speed rpm	: > 100	+
Rated speed rpm		Rated speed rpm : 300
···· · arta e a en interne		rack travel mm : 4.00
Check		Tolerance mm : + 0.30
speed 1/min	: > 80	+ Del. quantity
Check		+ cm3/1000 strokes : 12.0
speed 1/min	: < 220	+ Tolerance
		+ cm3/1000 strokes : + 2.0
FUEL DELIVERY CHA	ADACTEDISTICS	
OEL DELIVERY CHE	JUNE I ELITO I TEO	Spreed 4.5
Aneroid pressure		Tolerance
hPa	: 1000	+ cm3/1000 strokes : 3.5
Rated speed rpm	750	+
		•

Check tolerance cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 04.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 403 246 054

Injection pump

Pump designation : PES6MW100/720RS1526 EP type number : 0 413 206 025

Governor

Governer design. : RQV300...1300MW154 : 0 420 083 341 Governer no.

Cust. part No. : 0260748702

Customer-spec. information : MB-NFZ Customer : 0M366LA Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm 4.55 Tolerance mm : +- 0.05 Check

tolerance mm : + - 0.10

Rack travel in mm : 20.00 Tolerance mm : +- 1.00

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing : -300

Tolerance : + - 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

1300 Rated speed rpm :

11.90 Rack travel in mm: Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 98.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +--3.0

3.5

Spreed Tolerance

cm3/1000 strokes :

		+ Rated speed rpm	: 1445
Check tolerance cm3/1000s.	: 6.0	Rack travel in mm Tolerance mm	
Rated speed rpm	: 300	†	
Rack travel in mm Tolerance mm		FULL LOAD DELIVERY	AT FULL LO
Del. quantity			: 1300
cm3/1000 strokes Tolerance		+ Aneroid pressure + hPa	: 1000
cm3/1000 strokes Check tolerance		+ Del. quantity + cm3/1000 strokes	: 98.0
cm3/1000s. Spreed	: +- 4.5	Tolerance cm3/1000 strokes	: +- 1.0
Tolerance cm3/1000 strokes	: 3.5	Check tolerance	: + 3.0
Check tolerance cm3/1000s.	: 5.5	- Spreed - Tolerance	
	, ,,,,	cm3/1000 strokes Check tolerance	: 3.5
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	cm3/1000s.	: 6.0
W2111 60 V6.111011		<u> </u>	
GUIDE SLEEVE TRAVE	EL	CONTROL LEVER	
Rated speed rpm guide sleeve	: 300	control lever position degree	• 11/. 0
travel mm	: 1.01 : + 0.20	tolerance degree	
Tolerance mm	_	RATED SPEED	
Rated speed rpm guide sleeve			: 10.90
travel mm Tolerance mm	: 6.10 : + 0.15	+ Rated speed rpm + Tolerance 1/min	: 1345 : +- 5
Rated speed rpm	: 1140	rack travel mm	: 4.00 : 1500
guide sleeve travel mm	: 4.84	+ Rated speed rpm + Tolerance 1/min	
Tolerance mm	: +- 0.25	rack travel mm	: 0.50
Rated speed rpm guide sleeve	: 740	+ Tolerance mm + Rated speed rpm	: + 0.50 : 1600
travel mm Tolerance mm	: 3.23 : + 0.25	‡	
Rated speed rpm guide sleeve	: 1800	LOW IDLE	
travel mm	: 12.00		
Tolerance mm	: + 0.25	<pre>control lever position degree</pre>	
Rated speed rpm guide sleeve	: 1910	tolerance degree	: ← 4.0
travel mm Tolerance mm	: 13.50 : +- 0.50	Testing:	
		Rated speed rpm :	300 4.30
GUIDE SLEEVE POSIT	ION		+- 0.10
		て	

LOAD STOP

Date of an and one	200	1 8-1
Rated speed rpm	: 200	+ Del. quantity + cm3/1000 strokes : 92.0
CRT mm min.	; > 4.80	+ Tolerance
		+ cm3/1000 strokes : +- 1.5
TORQUE CONTROL		+ cm3/1000s. : +- 4.0
Rated speed rpm	. 1700	+ Spreed + Tolerance
rack travel mm	: 11.90	- cm3/1000 strokes : 5.0
Tolerance mm		Check tolerance
		+ cm3/1000s. : 7.0
Rated speed rpm	: 750	†
rack travel mm	: 11.90	+ Aneroid pressure
Tolerance mm	; + 0.70	+ hPa : -
·		Rated speed rpm : 500 Del. quantity
ANEROID/ALTITUDE		+ cm3/1000 strokes : 61.0
COMPENSATOR TEST		Tolerance
THE THE PERSON OF THE PERSON O		+ cm3/1000 strokes : + 1.0
		- Check tolerance
SETTING		+ cm3/1000s. : +- 3.0
		†
Rated speed rpm	: 500	DDFAVALIAN
Pressure hPa	: 1000 : 11.90	BREAKAWAY
rack travel mm Tolerance mm	; + 0.05	Ī
rocerance in	. + 0.05	Rack travel in mm: 10.90
MEASUREMENT		Rated speed rpm : 1345
· · · · · · · · · · · · · · · · · · ·		+ Tolerance 1/min : + 5
Pressure hPa	-	+
Rated speed rpm	: 500	+
Tolerance mm	: ← 0.10	OTANTANO SUR ARI TURNY
Rated speed rpm	: 500	STARTING FUEL DELIVERY
rated speed this	. 500	Rated speed rpm : 100
Pressure hPa	: 350	+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 125.0
Tolerance mm		+ Tolerance
		+ cm3/1000 strokes : +- 5.0
Pressure hPa		+ Check tolerance
rack travel mm	: 0.65	+ cm3/1000s. : +- 8.0
Tolerance mm	: +- 0.10	$oldsymbol{ ilde{1}}$
-	<u> </u>	
START CUT-OUT		
	400	+ LOW IDLE
Rated speed rpm		Poted aread 700
Rated speed rpm	: < 220	+ Rated speed rpm : 300 + rack travel mm : 4.30
Check		+ Tolerance mm : + 0.20
speed 1/min	: > 80	+ Del. quantity
Check		+ cm3/1000 strokes : 12.0
speed 1/min	: < 240	+ Tolerance
		+ cm3/1000 strokes : +- 2.0
P1 (P1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	4 D 4 O T P D T D T D D D	Check tolerance
FUEL DELIVERY CHA	AKACIERISTICS	+ cm3/1000s. : +- 4.5
Ananoid massums		+ Spreed + Tolerance
Aneroid pressure hPa	: 1000	+ cm3/1000 strokes : 3.5
Rated speed rpm		1 3137 1000 007 01100
Tare opeod him		ı

Check tolerance cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 403 474 003

Injection pump

Pump designation : PES4MW100/720RS1127 EP type number : 0 413 404 103

Governor

Governer design. : RSV350...1300MWDA318

; -3

Governer no. : 0 420 085 087

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : 0M364A Power KW : 85.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x tength mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1280

Rack travel in mm : 12.50 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 85.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

Check tolerance +	tolerance degree : + 4.0
cm3/1000s. : 6.0	-
Rated speed rpm : 350	RATED SPEED
Rated speed rpm : 350	rack travel mm : 11.40
Rack travel in mm: 9.30	Rated speed rpm : 1325
Tolerance mm : + 0.20	Tolerance 1/min : + 5
Del. quantity +	
cm3/1000 strokes : 11.0	rack travel mm : 4.00 Rated speed rpm : 1405
Tolerance + 2.0 +	Rated speed rpm : 1405 Tolerance 1/min : +- 15
Check tolerance	rocerance many
cm3/1000s. : +- 4.5	rack travel mm : 1.00
Spreed	Tolerance mm : + 0.70
Tolerance + cm3/1000 strokes : 3.5	Rated speed rpm : 1480
Check tolerance	
cm3/1000s. : 5.5	
+	LOW IDLE
(D) SETTING OF THEFETYON DUMP	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever
+	position degree : 76.0
+	tolerance degree : +- 4.0
CUTAE OF CONTRANT	Tanksan
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 800	Rated speed rpm : 350
+	rack travel mm : 9.30
Rack travel in mm: 0.65	Tolerance mm : +- 0.05
Tolerance mm : + 0.35	rack travel mm : 2.00
governor spring	rack travel mm : 2.00 Rated speed rpm : 500
pre-tension +	Tolerance 1/min : + 30
click setting x : 4.00	
†	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 19.00
+	
Rated speed rpm : 1280	TARAUE GANTRA
Aneroid pressure	TORQUE CONTROL
Del. quantity	Rated speed rpm : 1280
cm3/1000 strokes : 85.0	rack travel mm : 12.50
Tolerance +	Tolerance mm : + 0.10
cm3/1000 strokes : + 1.0	Dated aread our - 700
Check tolerance + 3.0 + 5.0	Rated speed rpm : 750 rack travel mm : 13.40
Spreed	Tolerance mm : + 0.10
Tolerance	
cm3/1000 strokes : 3.5	Rated speed rpm : 950
Check tolerance	rack travel mm : 13.00
cm3/1000s. : 6.0	Tolerance mm : + 0.10
<u> </u>	
CONTROL LEVER	
control lever	FUEL DELIVERY CHARACTERISTICS
position degree : 104.0	· Cas Passarent Girinitor Endorate
· · · · · · · · · · · · · · · · · · ·	

Aneroid pressure		
hPa	;	
Rated speed rpm Del. quantity	: 750	
cm3/1000 strokes Tolerance	: 81.0	
cm3/1000 strokes	: +- 1.5	
Check tolerance cm3/1000s.	: +- 4.0	
Spreed		
Tolerance cm3/1000 strokes	: 5.0	
Check tolerance cm3/1000s.	: 7.0	
Aneroid pressure hPa	: -	
Rated speed rpm	950	
Del. quantity cm3/1000 strokes	: 85.0	
Tolerance cm3/1000 strokes	: +- 1.5	
Check tolerance		
cm3/1000s.	: +- 4.0	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1325	
Rated speed rpm Tolerance 1/min	: 1325 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL	: 1325 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm	: 1325 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes	: 1325 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1325 : + 5 IVERY : 100 : 88.0	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1325 : + 5	-
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1325 : + 5 IVERY : 100 : 88.0	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1325 : + 5	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1325 : + 5 IVERY : 100 : 88.0 : + 5.0 : + 8.0	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm	: 1325 : + 5 IVERY : 100 : 88.0 : + 5.0 : + 8.0	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 1325 : + 5 IVERY : 100 : 88.0 : + 5.0 : + 8.0 : + 8.0 : + 0.20	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 1325 : + 5 IVERY : 100 : 88.0 : + 5.0 : + 8.0 : + 8.0 : + 0.20	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1325 : + 5 IVERY : 100 : 88.0 : + 5.0 : + 8.0 : + 8.0 : + 0.20	
Rated speed rpm Tolerance 1/min STARTING FUEL DEL Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1325 : + 5 IVERY : 100 : 88.0 : + 5.0 : + 8.0 : + 8.0 : + 0.20 : 11.0	

Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 05.03.96 Edition Test oil : ISQ 4113

Combination No. : 0 403 476 059

Injection pump

Pump designation : PES6MW100/720RS1130 EP type number : 0 413 406 122

Governor

Governer design. : RSV750...1250MW0A325

: -1

: 0 420 085 112 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 366 A Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.75 Tolerance mm : +- 0.05 Check : +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1230

Rack travel in mm: 10.95 : **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 78.0

Tolerance cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

	1	
Check tolerance	control lever	
cm3/1000s. : 6.0	position degree	:
Data d amand ann a 750	tolerance degree	: +-
Rated speed rpm : 750	T DATEN OPEN	
Rack travel in mm: 5.80	RATED SPEED	
Tolerance mm : + 0.30	I nack that all mm	
Del. quantity	+ rack travel mm + Tolerance mm	· : +-
cm3/1000 strokes : 12.0	Rated speed rpm	
Tolerance	I wated speed i bill	•
cm3/1000 strokes : +~ 2.0	rack travel mm	:
Check tolerance	+ Rated speed rpm	
cm3/1000s. : +- 4.5	Thatea opeca ipiii	•
Spreed	ASSEMBLY GOVERNOR	SET
Tolerance	+	
cm3/1000 strokes : 3.5	+ Rated speed rpm	:
Check tolerance	+ rack travel mm	:
cm3/1000s. : 5.5	+	
	+ Rated speed rpm	
		: +
(B) SETTING OF INJECTION PUMP	+ rack travel mm	:
WITH GOVERNOR	†	
	Rated speed rpm rack travel mm	:
	† rack travel mm	:
CUIDE OF FEUE PACITION	T Dotted around man	
GUIDE SLEEVE POSITION	+ Rated speed rpm + Tolerance 1/min	; : +-
Rated speed rpm : 800	+ rack travel mm	:
Mared Speed pill : 000	T rack travet min	•
Rack travel in mm : 0.65	+ Rated speed rpm	:
Tolerance mm : +- 0.35	+ rack travel mm	: :
	+	_
governor spring	+ Rated speed rpm	:
pre-tension	+ Tolerance 1/min	: +-
click setting x : 4.00	+ rack travel mm	:
	†	
FULL 1040 PPI TUPDY AT FULL 1040 0700	Rated speed rpm : rack travel mm	:
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm	:
Rated speed rpm : 1230	Rated speed rpm	
Aneroid pressure	+ Tolerance 1/min	
hPa : -		
Del. quantity	+	-
cm3/1000 strokes : 78.0	Rated speed rpm	:
[olerance	Rated speed rpm : rack travel mm :	:
cm3/1000 strokes : +- 1.0	+	
Check tolerance : +- 3.0	+ Rated speed rpm :	:
cm3/1000s. : +- 3.0	+ Tolerance 1/min :	: +-
preed	+ rack travel mm :	:
olerance	†	
m3/1000 strokes : 3.5	+ Rated speed rpm :	:
theck tolerance : 6.0	rack travel mm :	:
m5/TUUUS. : 6.U	T Dated asset asset	
	+ Rated speed rpm :	
		; +- :
CONTROL LEVER	+ rack travel mm :	•
MALLING FEACK	I	
	LOW IDLE	
	i TON TOPIC	

control lever		
position degree	;	78.0
tolerance degree	: +-	4.0

Testing:

Rated speed rpm	:	750
rack travel mm	:	5.80
Tolerance mm	: +	- 0.15

rack travel	mm	:	2.00
Rated speed	rpm	;	775

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm	:	1	1230
rack travel mm	:		10.95
Tolerance mm	:	+	0.05

Rated speed rpm : 600 rack travel mm : 10.95 Tolerance mm : 4- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 600
Del. quantity
cm3/1000 strokes : 56.0
Tolerance
cm3/1000 strokes : +- 1.5
Check tolerance
cm3/1000s. : +- 4.0

Spreed Tolerance

cm3/1000 strokes : 5.0 Check tolerance

cm3/1000s. : 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 83.0

Tolerance cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: +-	750 5.80 0.30	
cm3/1000 strokes	:	12.0	
Tolerance cm3/1000 strokes Check tolerance	: +-	2.0	
cm3/1000s. Spreed	: +-	4.5	
Tolerance			
cm3/1000 strokes Check tolerance	:	3.5	
cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 01.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 403 476 075

Injection pump

Pump designation : PES6MW100/720RS1130

EP type number : 0 413 406 122

Governor

Governer design. : RSV350...750MWOA336

: -4

Governer no. : 0 420 085 160

Cust. part No. :

Customer-spec. information : MB-NFZ Customer Motor : OM366A Power KW 84.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 2.5 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +-

Prestroke mm 3.75 : +- 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50Check

tolerance "NW : **←** 0.75

BASIC SETTING

700 Rated speed rpm

12.05 Rack travel in mm: Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 85.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

E04

Check tolerance	t control lever
cm3/1000s. : 6.0	+ position degree : 78.0
	tolerance degree : + 4.0
Rated speed rpm : 350	+
Pool desiral in an a 4.70	+ RATED SPEED
Rack travel in mm : 6.30 Tolerance mm : +- 0.50	rack travel mm : 1.00
Del. quantity	+ Tolerance mm : + 0.70
cm3/1000 strokes : 11.0	+ Rated speed rpm : 850
Tolerance	+
cm3/1000 strokes : +- 2.0	+ ASSEMBLY GOVERNOR SETTING
Check tolerance cm3/1000s. : +- 4.5	+ Rated speed rpm : 750
Spreed 4.3	+ Rated speed rpm : 750 + rack travel mm : 11.00
Tolerance	Tack Cravec mail
cm3/1000 strokes : 3.5	+ Rated speed rpm : 779
Check tolerance	+ Tolerance 1/min : +- 4
cm3/1000s. : 5.5	track travel mm : 4.00
	+ Rated speed rpm : 751
(B) SETTING OF INJECTION PUMP	+ Rated speed rpm : 751 + rack travel mm : 11.00
WITH GOVERNOR	+
	Rated speed rpm : 780
	+ Tolerance 1/min : + 4
CUTAE OF COLUMN DOCTTION	+ rack travel mm : 4.00
GUIDE SLEEVE POSITION	Rated speed rpm : 752
Rated speed rpm : 800	+ rack travel mm : 11.00
· · · · · · · · · · · · · · · · · · ·	+
Rack travel in mm: 0.65	+ Rated speed rpm : 781
Tolerance mm : + 0.35	+ Tolerance 1/min : + 4
governor spring	+ rack travel mm : 4.00
pre-tension	Rated speed rpm : 753
click setting x : 2.80	+ rack travel mm : 11.00
-	+
THE LOAD OF THERM AT THE LOAD OTOD	Rated speed rpm : 782
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance 1/min : + 4 + rack travel mm : 4.00
Rated speed rpm : 700	T rack cravet likis . 4.00
Aneroid pressure	+ Rated speed rpm : 754
hPa : -	+ rack travel mm : 11.00
Del. quantity	+
cm3/1000 strokes : 85.0	+ Rated speed rpm : 783
Tolerance cm3/1000 strokes : +- 1.0	+ Tolerance 1/min : +- 4 + rack travel mm : 4.00
Check tolerance	T rack cravet limit . 4.00
cm3/1000s. : +- 3.0	Rated speed rpm : 755
Spreed	+ rack travel mm : 11.00
Tolerance	70/
cm3/1000 strokes : 3.5 Check tolerance	+ Rated speed rpm : 784 + Tolerance 1/min : +- 4
cm3/1000s. : 6.0	rack travel mm : 4.00
	+
	+
CONTROL 1 EVER	+ LOW IDLE
TIRGINE I HVHV	~

CONTROL LEVER

control lever position degree tolerance degree : + 4.0 Testing: 350 Rated speed rpm rack travel mm 6.30 : +- 0.50 Tolerance mm 2.00 rack travel mm Rated speed rpm 390 Tolerance 1/min 30 Rated speed rpm 100 : > 19.00 CRT mm min. TORQUE CONTROL 700 Rated speed rpm : rack travel mm : 12.05 Tolerance mm : + 0.05 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 95.0 Tolerance 5.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. : + 8.0 LOW IDLE 350 Rated speed rpm : 6.30 rack travel mm : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s.4.5

Spreed Tolerance

E06

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s. : 5.5

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 26,02,96 Test oil : ISO 4113 Combination No. : 9 400 085 319 Injection pump Pump designation : PES6A95D41ORS2772 EP type number : 9 400 084 018 Governor Governer design. : RQV300...1400AB1066 : -10L : 9 420 080 287 Governer no. Cust. part No. : Customer-spec. information : MBB Customer : OM 352 A Motor Power KW : 141.0 TEST BENCH REQUIREMENTS Inlet line : 3.2 Test oil inlet temp. °C Tolerance °C : + 2.0Overflow valve : 1 417 413 006 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly Opening pressure 173.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 015

x inside diameter : 3.0 x length man : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar: 26.0 Tolerance bar : +- 1.0 Prestroke mm : +~ 0.05 Tolerance mm Check tolerance mm : + 0.10Rack travel in mm: 10.50 Tolerance mm : + 1.50 Firing order : 1-5-3-6-2-: 0-60-120-180-240 Phasing : -300 BASIC SETTING Rated speed rpm : 1400 Rack travel in mm: 9.55 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 78.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 6.0

Outside diameter :

1	Canand
Del. quantity	Spreed Tolerance
cm3/1000 strokes : 11.0	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : + 3.0 +	cm3/1000s. : 6.0
Check tolerance	
cm3/1000s. : + 5.0	
Spreed	2017201 1 2170
Tolerance + cm3/1000 strokes : 3.5 +	CONTROL LEVER
Check tolerance	control lever
cm3/1000s. : 5.5	position degree : 62.0
	tolerance degree : + 4.0
+	•
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR +	position degree : 111.0
†	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
+	THE STATE OF THE S
Rated speed rpm : 300	rack travel mm : 8.50
guide sleeve +	Rated speed rpm : 1465
travel mm : 1.05	Tolerance 1/min : +- 5
Tolerance mm : + 0.25	rack travel mm : 4.00
Rated speed rpm : 1500	Rated speed rpm : 1550
guide sleeve	Tolerance 1/min : +- 15
travel mm : 8.55	
Tolerance mm : + 0.05	rack travel mm : 0.50
<u> </u>	Tolerance mm : +- 0.50
Rated speed rpm : 500	Rated speed rpm : 1650
guide sleeve + travel mm : 2.55 +	
Tolerance mm : +- 0.25	
1000 41100 11111	LOW IDLE
Rated speed rpm : 750 +	
guide sleeve	
travel mm : 4.20	control lever
Tolerance mm : + 0.10	position degree : 67.0
<u> </u>	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	control lever
+	position degree : 19.0
Rated speed rpm : 1500	tolerance degree : +- 4.0
7.50	Tanklan
Rack travel in mm: 16.50	Testing:
Toterance likit : += 1.50	Rated speed rpm : 300
	rack travel mm : 7.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
†	
Rated speed rpm : 1400	Rated speed rpm : 100
Aneroid pressure + Pa : 700 +	CRT mm min. :> 8.00
Del. quantity	CIVE HART HITTIS
cm3/1000 strokes : 78.5	Rated speed rpm : 485
Tolerance	• • • • • • • • • • • • • • • • • • • •
cm3/1000 strokes : +- 1.0 +	
Check tolerance +	TORQUE CONTROL
cm3/1000s. : +- 3.0 +	

Rated speed rpm	: 1400	+ Check tolerance
rack travel mm	: 9.55	+ cm3/1000s. : +- 4.0
Tolerance mm	: +- 0.05	
	0,00	Aneroid pressure
Pated speed rom	• 200	l hpa
Rated speed rpm rack travel mm Tolerance mm	. 10.05	Rated speed rpm : 1000
rack travel mm	(0.05	+ Rated Speed rpm : 1000
loterance mm	: +- 0.05	+ Del. quantity
		+ cm3/1000 strokes : 79.0
Rated speed rpm	: 1000	+ Tolerance
rack travel mm	: 9.80	+ cm3/1000 strokes : + 1.5
rack travel mm Tolerance mm	: ← 0.10	+ Check tolerance
		+ cm3/1000s. : +- 4.0
ANEROID/ALTITUDE		Aneroid pressure
COMPENSATOR TEST		hPa : -
COM ENDATOR TEST		Rated speed rpm : 500
		T Nateu speed (pill .)00
00000		+ Del. quantity
SETTING		- cm3/1000 strokes : 42.0
	500	+ Tolerance
Rated speed rpm	: 500	+ cm3/1000 strokes : +- 1.0
Pressure hPa	: 700	+ Check tolerance
rack travel mm	: 10.05	+ cm3/1000s. : +- 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: ← 0.05	+
	2.1	1 ————————————————————————————————————
MEASUREMENT		BREAKAWAY
Pressure hPa		1
Pressure hPa Rated speed rpm	. 500	Rack travel in mm: 8.50
kated speed rpm	: 500	
.	500	+ Rated speed rpm : 1465
Mata baad thm	• 51.111	
Rated speed rpm	. 200	+ Tolerance 1/min : +- 5
		Toterance 1/min : +- 5
Pressure hPa	: 170	Toterance I/min : +- 5
Pressure hPa rack travel mm	: 170 : 0.55	Toterance 1/min : +- 5
Pressure hPa rack travel mm	: 170 : 0.55	- STARTING FUEL DELIVERY
Pressure hPa	: 170 : 0.55	
Pressure hPa rack travel mm Tolerance mm	: 170 : 0.55 : +- 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100
Pressure hPa rack travel mm Tolerance mm Pressure hPa	: 170 : 0.55 : +- 0.05 : 330	STARTING FUEL DELIVERY Rated speed rpm : 100
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm	: 170 : 0.55 : + 0.05 : 330 : 1.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00
Pressure hPa rack travel mm Tolerance mm Pressure hPa	: 170 : 0.55 : + 0.05 : 330 : 1.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : +- 0.10
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm	: 170 : 0.55 : + 0.05 : 330 : 1.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : +- 0.10 Del. quantity
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 170 : 0.55 : + 0.05 : 330 : 1.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm	: 170 : 0.55 : + 0.05 : 330 : 1.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 220 : > 80	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 220 : > 80	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 220 : > 80 : < 240	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 13.0 LOW IDLE Del. quantity
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 220 : > 80 : < 240	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 220 : > 80 : < 240	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 3.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS : 700	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS : 700	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 5.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS : 700 : 800	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Spreed
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS : 700 : 800	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 5.0
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS : 700 : 800	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Spreed
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity	: 170 : 0.55 : + 0.05 : 330 : 1.20 : + 0.10 : > 100 : < 220 : > 80 : < 240 RACTERISTICS : 700 : 800 : 75.5	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 13.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0 LOW IDLE Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance

Check tolerance cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.02.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 363

Injection pump

Pump designation : PES6A95D41ORS2772 EP type number : 9 400 084 018

Governor

Governer design. : RQV300...1300AB1277L

Governer no. : 9 420 080 355

Cust. part No. :

Customer-spec. information Customer : MBB : OM 366 A Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : \leftarrow 1.0

Prestroke mm : 3.25 Tolerance mm : +- 0.05 Check tolerance mm : ← 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 10.55 Tolerance mm : **←** 0.05

Del. quantity cm3/1000 strokes : 91.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s.

+	Spreed
Del. quantity	Tolerance
cm3/1000 strokes : 11.0 +	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : +- 2.0 +	cm3/1000s. : 8.0
Check tolerance +	
cm3/1000s. : + 4.5	
Spreed	
Tolerance +	CONTROL LEVER
cm3/1000 strokes : 5.5	
Check tolerance +	control lever
cm3/1000s. : 9.0 +	position degree : 108.0
+	tolerance degree : +- 4.0
+	-
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR +	
+	rack travel mm : 9.50
	Rated speed rpm : 1350
GUIDE SLEEVE TRAVEL	Tolerance 1/min : +- 5
+	
Rated speed rpm : 300 +	rack travel mm : 4.00
guide sleeve +	Rated speed rpm : 1475
travel mm : 1.05 +	Tolerance 1/min : + 15
Tolerance mm : + 0.25 +	
+	rack travel mm : 0.50
Rated speed rpm : 1500 +	Tolerance mm : + 0.50
guide steeve +	Rated speed rpm : 1650
travel mm : 8.55	
Tolerance mm : + 0.05	
+	
Rated speed rpm : 500	LOW IDLE
guide sleeve	LOW IDLE
	LOW IDLE
guide sleeve	LOW IDLE control lever
guide sleeve + travel mm : 2.55 +	
guide sleeve + travel mm : 2.55 +	control lever
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750	control lever position degree : 68.0
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25	control lever position degree : 68.0 tolerance degree : + 4.0
guide sleeve travel mm : 2.55 Tolerance mm : +- 0.25 Rated speed rpm : 750 guide sleeve	control lever position degree : 68.0
guide sleeve travel mm : 2.55 Tolerance mm : +- 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	control lever position degree : 68.0 tolerance degree : + 4.0
guide sleeve travel mm : 2.55 Tolerance mm : +- 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	<pre>control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300</pre>
guide sleeve travel mm : 2.55 Tolerance mm : +- 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20	<pre>control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300</pre>
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 8.00 Rated speed rpm : 325 TORQUE CONTROL
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : + 0.05
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0 Tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : + 0.05 Rated speed rpm : 800
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : + 0.05 Rated speed rpm : 800 rack travel mm : 11.25
guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1500 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 91.0 Tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 8.00 Rated speed rpm : 325 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 10.55 Tolerance mm : + 0.05 Rated speed rpm : 800

Rated speed rpm rack travel mm Tolerance mm		Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure hPa : - Rated speed rpm : 500
SETTING		+ Del. quantity + cm3/1000 strokes : 62.0 + Tolerance
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 800	- cm3/1000 strokes : + 1.0 - Check tolerance - cm3/1000s. : + 3.0
MEASUREMENT		BREAKAWAY
Pressure hPa Rated speed rpm Rated speed rpm		Rack travel in mm : 9.50 Rated speed rpm : 1350 Tolerance 1/min : + 5
Pressure hPa rack travel mm	: 500 : 1.20	
Tolerance mm		+ STARTING FUEL DELIVERY
Fressure hPa rack travel mm Tolerance mm	: 310 : 0.45 : + 0.05	+ Rated speed rpm : 100 + rack travel mm : 13.30 + Tolerance mm : +- 0.10 + Del. quantity
START CUT-OUT		+ cm3/1000 strokes : 82.5 + Tolerance + cm3/1000 strokes : +- 7.5
Rated speed rpm Rated speed rpm		Check tolerance cm3/1000s. : + 10.0
Check speed 1/min Check	: > 80	
speed 1/min	: < 240	+ LOW IDLE
FUEL DELIVERY CHA	ARACTERISTICS	Del. quantity cm3/1000 strokes : 11.0 Tolerance
Aneroid pressure hPa	: 800 : 800	+ cm3/1000 strokes : +- 2.0 + Check tolerance + cm3/1000s. : +- 4.5
Rated speed rpm Del. quantity cm3/1000 strokes		Spreed Tolerance
Tolerance cm3/1000 strokes		cm3/1000 strokes : 5.5 Check tolerance
Check tolerance cm3/1000s.	: +- 4.0	+ cm3/1000s. : 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity		
cm3/1000 strokes	: 91.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.03.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 085 377

Injection pump

Pump designation : PES6A95D41ORS2857 EP type number : 9 400 084 036

Governor

Governer design. : RQV300...1250AB1284L

Governer no. : 9 420 080 372

Cust. part No. :

Customer-spec. information

Customer : DEUTZ-ARGENTINA : BF 6 L 913C Motor

: 140.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm 2.80 Tolerance mm : + - 0.05Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.25 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 98.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

Del. quantity	<u> </u>	Del. quantity cm3/1000 strokes	: 98.5
cm3/1000 strokes :	17.0	Tolerance	
Tolerance cm3/1000 strokes :	+ 2.0	cm3/1000 strokes Check tolerance	: +- 1.0
Check tolerance	+	cm3/10008.	: +- 3.0
cm3/1000s. : Spreed	+ 4.5	Spreed Tolerance	
Tolerance	+	cm3/1000 strokes	: 3.5
cm3/1000 strokes : Check tolerance	5.5	Check tolerance cm3/1000s.	: 8.0
cm3/1000s. :	9.0	CHO7 TOOGS.	. 0.0
	İ		
(B) SETTING OF INJE	CTION PUMP	CONTROL LEVER	
WITH GOVERNOR	1	control lever	
		position degree	
GUIDE SLEEVE TRAVEL	‡	tolerance degree	: +- 4.0
Rated speed rpm : guide sleeve	1250	RATED SPEED	
travel mm :	7.70	rack travel mm	: 10.20
Tolerance mm :	+ 0.10	Rated speed rpm Tolerance 1/min	
Rated speed rpm :	900	1 1 1	/ 00
guide sleeve travel mm	5,35	rack travel mm Rated speed rpm	: 4.00 : 1400
	+ 0.25	Tolerance 1/min	
Rated speed rpm :	300 +	rack travel mm	: 0.50
guide sleeve	+	Tolerance mm	: ← 0.50
travel mm : Tolerance mm :	0.85 + 0.25	Rated speed rpm	: 1550
<u> </u>	+		
Rated speed rpm : guide sleeve	500	LOW IDLE	
travel mm :	3.55	LOW IDEL	
Tolerance mm :	+ 0.25	control lever	
Rated speed rpm :	1400 I	position degree	: 66.0
guide sleeve	9.05	tolerance degree	: +- 4.0
travel mm : Tolerance mm :	+ 0.25	Testing:	
	+	Rated speed rpm	• 300
GUIDE SLEEVE POSITIO	NO +	rack travel mm Tolerance mm	: 5.00
	+	Tolerance mm	: + 0.10
Rated speed rpm :	1350 +	Rated speed rpm	: 100
Rack travel in mm :		CRT mm min.	: > 7.00
Tolerance mm :	7.30	CKI HAD WITTS.	. > 7.00
FULL LOAD DELIVERY A	AT FULL LOAD STOP	Rated speed rpm	: 375
Rated speed rpm : Aneroid pressure	1250	TORQUE CONTROL	
hPa :	900	Rated speed rpm	: 1250
	+	rack travel mm	: 11.25

Tolerance mm	: +- 0.05	+ Del. quantity
TOCCT GITTO THE		+ cm3/1000 strokes : 83.5
Rated speed rpm	: 800	+ Tolerance
rack travel mm Tolerance mm	: 11.25 : + 0.05	+ cm3/1000 strokes : +- 1.0
loterance mm	: +- 0.05	+ Check tolerance + cm3/1000s. : +- 3.0
********************	·	
ANEROID/ALTITUDE		
COMPENSATOR TEST		+ BREAKAWAY
		Ī
SETTING		Rack travel in mm: 10.20
		Rated speed rpm : 1295
Rated speed rpm	: 500	+ Tolerance 1/min : + 5
Pressure hPa rack travel mm	: 900 : 11.25	Ī
Tolerance mm	: +- 0.05	
		+ STARTING FUEL DELIVERY
MEASUREMENT		
Pressure hPa		Rated speed rpm : 100 + rack travel mm : 16.10
Rated speed rpm		+ Tolerance mm : + 0.10
The same of same and the same	. 500	+ Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 160.0
	470	+ Tolerance
Pressure hPa rack travel mm		cm3/1000 strokes : +- 7.5 Check tolerance
Tolerance mm		+ cm3/1000s. : + 10.0
rocerance ann		- CIIIS/ 10000:
Pressure hPa	: 550	+
rack travel mm		+
Tolerance mm	: + 0.05	LOW IDLE
·	 	
START CUT-OUT		+ Del. quantity
Rated speed rpm	• > 100	cm3/1000 strokes : 17.0 Tolerance
Rated speed rpm		- cm3/1000 strokes : + 2.0
Taboa opoou Tpm		+ Check tolerance
Check		+ cm3/1000s. : $+$ 4.5
speed 1/min	: > 80	+ Spreed
Check speed 1/min	: < 240	Tolerance cm3/1000 strokes : 5.5
specu Dann	. `	+ Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	†
Aneroid pressure		İ
hPa	: 900	I
Rated speed rpm	: 800	
Del. quantity		+
cm3/1000 strokes	: 104.0	End of test specification sheet
Tolerance cm3/1000 strokes	: +- 2.0	İ
Check tolerance	. τ- ζ.υ	I
cm3/1000s.	: +- 4.0	
	- -	+
Aneroid pressure		†
hPa	500	1
Rated speed rpm	.)00	au

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 11.03.96 Edition : ISO 4113 Test oil Combination No. : 0 400 863 008 Injection pump Pump designation : PES3A90D320/3RS2658 EP type number : 0 410 893 004 Governor Governer design. : RSV325...1500A2C505 : -3R : 0 420 233 229 Governer no. Cust. part No. : 1-7545 Customer-spec. information : MWM Customer Motor : D226B-3 : 49.5 Power KW TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C Tolerance °C : +- 2.0 : 1 419 992 198 Overflow valve 1.5 Inlet press. bar : Test nozzle holde : 0 681 343 009 assembly Opening pressure 173.5 bar : +- 1.5 Tolerance bar

: 1 680 750 014

x length mm	: 600
REMARKS	
(A) INJECTION PUM Set equal delivery per values	
BEGINNING OF DELIV	VERY
Test pressure bar Tolerance bar	: 26.0 : + 1.0
Prestroke mm Tolerance mm Check	: 3.00 : +- 0.05
tolerance mm	: +- 0.10
Rack travel in mm Tolerance mm	: 10.50 : + 1.50
Firing order	: 1- 2- 3
Phasing	: 0-120-240
Beginning of deliv	very differende
and maximum rack travel Difference °CS	: 9.00 : 4.00
BASIC SETTING	
Rated speed rpm	: 1100
Rack travel in mm Tolerance mm	: 11.25 : + 0.05
Del. quantity cm3/1000 strokes	: 90.0
Tolerance cm3/1000 strokes	: + 0.5
Check tolerance cm3/1000S.	: +- 2.5

x inside diameter: 2.0

Test lines

Outside diameter : 6.0

Spreed +	
Tolerance cm3/1000 strokes : 3.0	CONTROL LEVER
Check tolerance cm3/1000s. : 5.0	<pre>control lever position degree : 93.0 tolerance degree : +- 4.0</pre>
Rated speed rpm : 325	
Rack travel in mm: 9.80	RATED SPEED
Tolerance mm : + 0.10 + Del. quantity +	rack travel mm : 10.20 Rated speed rpm : 1145
cm3/1000 strokes : 49.5	Tolerance 1/min : 7 5
Tolerance cm3/1000 strokes : +- 3.0	rack travel mm : 4.00
Check tolerance cm3/1000s. : +- 5.0	Rated speed rpm : 1195 Tolerance 1/min : +- 15
Spreed +	rack travel mm : 0.85
cm3/1000 strokes : 2.5	Tolerance mm : +- 0.55 Rated speed rpm : 1375
cm3/1000s. : 4.5	rack travel mm : 4.00
(D) SETTING OF TAMESTON DUMP	Rated speed rpm : 1225
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
<u> </u>	LOW IDLE
GUIDE SLEEVE POSITION	a man a dansar
Rated speed rpm : 800	control lever position degree : 67.0 tolerance degree : + 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Setting point w/out bumper spring
governor spring + pre-tension +	Rated speed rpm : 325 rack travel mm : 9.30
click setting x : 2.50	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 325 rack travel mm : 9.80
Rated speed rpm : 1100	Tolerance mm : +- 0.10
hPa : - +	rack travel mm : 2.00 Rated speed rpm : 510
Del. quantity cm3/1000 strokes : 90.0	Tolerance 1/min : + 30
Tolerance + cm3/1000 strokes : + 0.5	
Check tolerance + cm3/1000s. : + 2.5	TORQUE CONTROL
Spreed + Tolerance +	Rated speed rpm : 1100 rack travel mm : 11.25
cm3/1000 strokes : 3.0 + Check tolerance	Tolerance mm : +- 0.05
cm3/1000s. : 5.0	Rated speed rpm : 500 rack travel mm : 11.30 Tolerance mm : + 0.10

BREAKAWAY

Rack travel in mm : 10.20
Rated speed rpm : 1145
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 18.90 Tolerance mm : +- 2.10 Del. quantity cm3/1000 strokes : 115.0

LOW IDLE

Rated speed rpm 325 9.80 rack travel mm - 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 49.5 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance 2.5 cm3/1000 strokes : Check tolerance cm3/1000s. 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 402 066 710

Injection pump

Pump designation : PES6P110A120RS3357 EP type number : 0 412 106 754

Governor

Governer design. : RSV400...900P4A633 Governer no. : 0 421 833 541

Cust. part No. : 3931255

Customer-spec. information

Customer : CDC

: 6CTA ELITE Motor Power KW : 207.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

Tolerance °C 40 : +-2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

: +- 0.50 tolerance *NW

Start of delivery blocking

"NW after s.o.d.: 7.75 Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 850

Rack travel in mm: 13.35 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes	: 216.0	Check tolerance cm3/1000s. : 7.5
cm3/1000 strokes	: + 1.0	CONTROL LEVER
Check tolerance cm3/1000s.	: + 3.0	control lever position degree : 102.0
Spreed Tolerance cm3/1000 strokes	: 4.0	RATED SPEED rack travel mm : 12.30
Check tolerance cm3/1000s.	: 7.5	Rated speed rpm : 930 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes Tolerance	+	rack travel mm : 4.00 Rated speed rpm : 985 Tolerance 1/min : +- 5
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 2.0	rack travel mm : 0.85 Tolerance mm : + 0.55
Spreed Tolerance cm3/1000 strokes	: 6.0	Rated speed rpm : 1100 rack travel mm : 4.00
Check tolerance cm3/1000s.	: 9.0	Rated speed rpm : 995
(B) SETTING OF IN	JECTION PUMP	LOW IDLE
		control lever position degree : 77.0
GUIDE SLEEVE POSI	+	Setting point w/out bumper spring
Rated speed rpm	+	Rated speed rpm : 400
Rack travel in mm Tolerance mm		rack travel mm : 5.70
governor spring	‡	Testing:
pre-tension click setting x	: 4.50	Rated speed rpm : 400 rack travel mm : 6.20 Tolerance mm : + 0.20
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 500
Rated speed rpm Aneroid pressure	: 850	Rated speed rpm : 500 Tolerance 1/min : +- 30
hPa Del. quantity	: - ‡	Rated speed rpm : 100
cm3/1000 strokes Tolerance	: 216.0	CRT mm min. : < 19.00
cm3/1000 strokes Check tolerance	: + 1.0	TORQUE CONTROL
cm3/1000s. Spreed Tolerance	: + 3.0	Rated speed rpm : 850 rack travel mm : 13.35
cm3/1000 strokes	: 4.0	Tolerance mm : +- 0.05

BREAKAWAY

Rack travel in mm : 12.30
Rated speed rpm : 930
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 21.00
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 165.0
Tolerance
cm3/1000 strokes : + 20.0

Check tolerance cm3/1000s. : + 25.0

LOW IDLE

Del. quantity
cm3/1000 strokes : 24.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 6.0
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 076 778

Injection pump

Pump designation : PES6P120A720RS3352 EP type number : 0 412 026 780

Governor

Governer design. : RSV400...1100P2A599

: -1

Governer no. : 0 421 833 486

Cust. part No. : RE62642

Customer-spec. information

Customer : DEERE : 6081AF001 Motor

Power KW : 187.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar

: +- 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 600

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : +- 1.0

3.60

Prestroke mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

: +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

Start of delivery mark

*NW after s.o.d. : 8.00

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

14.00 travel

Difference * CS : 2.50

BASIC SETTING

Rated speed rpm : 1100

4	Check tolerance
Rack travel in mm: 12.45 Tolerance mm: + 0.05	cm3/1000s. : +- 3.0 Spreed Tolerance
	cm3/1000 strokes : 4.0
Del. quantity cm3/1000 strokes : 161.0	Check tolerance cm3/1000s. : 6.5
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVED
Check tolerance cm3/1000s. : + 3.0	CONTROL LEVER control lever
Spreed	position degree : 97.0 tolerance degree : +- 4.0
Tolerance cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 11.45 Rated speed rpm : 1145 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 24.5 Tolerance	rack travel mm : 4.00 Rated speed rpm : 1205
cm3/1000 strokes : +- 2.0 Check tolerance	Tolerance 1/min : + 5
cm3/1000s. : + 4.5 + 5	rack travel mm : 0.85 Tolerance mm : +- 0.55
Tolerance + cm3/1000 strokes : 6.0 +	Rated speed rpm : 1350
Check tolerance cm3/1000s. : 8.0	rack travel mm : 4.00 Rated speed rpm : 1215
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	control lever
GUIDE SLEEVE POSITION	position degree : 73.0 tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 400 rack travel mm : 5.20
governor spring pre-tension click setting x : 4.25	Testing:
The section of the se	Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.70 Toleranse mm : +- 0.10
Rated speed rpm : 1100 Aneroid pressure	Rated speed rpm : 100
hPa : 1600 +	CRT mm min. : > 19.00
cm3/1000 strokes : 161.0	TORQUE CONTROL
cm3/1000 strokes : + 1.0 +	

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 12.45 : + 0.05 : 700	+++++++++++++++++++++++++++++++++++++++	Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
ANEROID/ALTITUDE COMPENSATOR TEST SETTING		- + + + + + + + + + + + + + + + + + + +	Rack travel in man Rated speed rom Tolerance 1/min	: 1145
Rated speed rpm Pressure hPa	: 500 : 1600	‡		
MEASUREMENT		‡	STARTING FUEL DEL	LVERY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 8.80	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 100 : 21.00 : + 0.50 : 105.0
Rated speed rpm	: 500	Ŧ	Tolerance cm3/1000 strokes	: +- 20.0
Pressure hPa rack travel mm Tolerance mm		† + + +	Check tolerance cm3/1000s.	: +- 25.0
Pressure hPa rack travel mm Tolerance mm	: 475 : 9.80 : +- 0.05	† † † †	LOW IDLE Del. quantity	
START CUT-OUT		†	cm3/1000 strokes Tolerance	
Rated speed rpm	: > 100	‡	cm3/1000 strokes Check tolerance	
Check speed 1/min	: > 80	+	cm3/1000s. Spreed Tolerance	
-	······	. ‡	cm3/1000 strokes Check tolerance	
FUEL DELIVERY CHA	RACTERISTICS	‡	cm3/1000s.	: 8.0
Aneroid pressure hPa Rated speed rpm	: 1600 : 700	 		
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 167.5 : +- 2.0 : +- 4.0	+ + + + + + + + + + + + + + + + + + + 	End of test specif	ication sheet
Aneroid pressure hPa Rated speed rpm	: - : 500	++++		

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.03.96 : ISO 4113 Test oil

Combination No. : 0 402 076 782

Injection pump

Pump designation : PES6P120A720RS3352 EP type number : 0 412 026 780

Governor

Governer design. : RSV400...1100P2A599

: -3

Governer no. : 0 421 833 497

Cust. part No. : RE63766

Customer-spec. information Customer : DEERE

: 6081AF001 Motor Power KW : 187.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : +- 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05 : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance "NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 8.00 Tolerance : \leftarrow 0.50

Check

: +- 0.75 tolerance °NW

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel 14.00 Difference * CS : 2.50

BASIC SETTING

Rated speed rpm : 1100

		- + Check tolerance + cm3/1000s.	: +- 3.0
Rack travel in mm Tolerance mm		Spreed Tolerance cm3/1000 strokes	· -
Del. quantity cm3/1000 strokes	: 161.0	Check tolerance cm3/1000s.	
Tolerance cm3/1000 strokes	: +- 1.0	CONTROL LEVER	
Check tolerance cm3/1000S.	: + 3.0	control lever	• 07.0
Spreed Tolerance		tolerance degree	: +- 4.0
cm3/1000 strokes	: 4.0	RATED SPEED	
Check tolerance cm3/1000s.	: 6.5	rack travel mm Rated speed rpm Tolerance 1/min	: 1145
Del. quantity cm3/1000 strokes Tolerance		rack travel mm Rated speed rpm	: 1205
cm3/1000 strokes Check tolerance		† Tolerance 1/min	: +- 5
cm3/1000s. Spreed Tolerance	: ← 4.5	rack travel mm Tolerance mm Rated speed rpm	
cm3/1000 strokes Check tolerance	: 6.0	rack travel mm	: 4.00
cm3/1000s.	: 8.0	Rated speed rpm	
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	LOW IDLE	
GUIDE SLEEVE POSIT	TION	control lever position degree	
Rated speed rpm	: 800	tolerance degree Setting point w/o	
Rack travel in mm Tolerance mm	: 0.50 : +- 0.20	Rated speed rpm	
governor spring		rack travel mm	
pre-tension click setting x	: 4.25	Testing:	
		+ Rated speed rpm + rack travel mm	: 5.70
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Tolerance mm	: +- 0.10
Rated speed rpm Aneroid pressure		Rated speed rpm	
hPa Del. quantity	: 1600	CRT mm min.	: > 19.00
cm3/1000 strokes Tolerance		TORQUE CONTROL	
cm3/1000 strokes	; +- 1.0	+	

Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +- 3.0 : 4.0 : 6.5
CONTROL LEVER	
control lever position degree tolerance degree	: 97.0 : +- 4.0
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: 11.45 : 1145 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1205 : +- 5
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1350
rack travel mm Rated speed rpm	: 4.00 : 1215
LOW IDLE	
control lever position degree tolerance degree	: 73.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	: 400 : 5.20
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 400 : 5.70 : +- 0.10
Rated speed rpm	: 100

ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 1600 MEASUREMENT Pressure hPa : 0.20 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 960 rack travel mm : 11.70 Tolerance mm : + 0.20 Pressure hPa : 475 rack travel mm : 9.80 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min :> 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 4.5 Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 4.5 Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 4.5 Tolerance cm3/1000 strokes : 6.0 Check tolerance	Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 12.45 : +- 0.05 : 700	† † † † †	Del. quantity cm3/1000 strokes : 71.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0
Rated speed rpm : 500 Fressure hPa : 1600 STARTING FUEL DELIVERY			— <u>†</u>	
MEASUREMENT Pressure hPa :	SETTING		‡	Rated speed rpm : 1145 Tolerance 1/min : +- 5
### Rated speed rpm : 100 Pressure hPa	Rated speed rpm Pressure hPa	: 500 : 1600	+	STARTING FILE DELIVERY
Pressure hPa : - Rated speed rpm : 500 rack travel mm : 8.80 Tolerance mm : + 0.20 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 960 rack travel mm : 11.70 Tolerance mm : + 0.20 Pressure hPa : 960 rack travel mm : 11.70 Tolerance mm : + 0.20 Pressure hPa : 475 rack travel mm : 9.80 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 4.0 Aneroid pressure cm3/1000 strokes : 4.0 Aneroid pressure cm3/1000s : + 4.0 Aneroid pressure hPa : 4.0 Aneroid pressure hPa : -	MEASUREMENT		Ì	
Rated speed rpm : 500 Pressure hPa : 960 rack travel mm : 11.70 Tolerance mm : + 0.20 Pressure hPa : 980 Tolerance mm : 9.80 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : 8.0 Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 8.0 Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : 4.0 Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 4.0 Aneroid pressure hPa : 4.0	Rated speed rpm rack travel mm	: 8.80	+	rack travel mm : 21.00 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 105.0
Pressure hPa : 960 rack travel mm : 11.70 Tolerance mm : + 0.20 Pressure hPa : 475 rack travel mm : 9.80 Tolerance mm : + 0.05	Rated speed rpm	: 500	‡	cm3/1000 strokes : +- 20.0
Tolerance mm : 9.80 Tolerance mm : + 0.05 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Aneroid pressure cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 4.0 Aneroid pressure hPa : - 4.0 Aneroid pressure hPa : - 4.0	rack travel mm	: 11.70	<u> </u>	
Tolerance	rack travel mm	: 9.80	+++++++++++++++++++++++++++++++++++++++	Del. quantity
Check speed 1/min :> 80 Check speed 1/min :> 80 Check Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. :+ 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 8.0 Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. :+ 4.0 Aneroid pressure hPa : -	START CUT-OUT		_	Tolerance
speed 1/min :> 80 Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 8.0 Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. :+- 4.0 Aneroid pressure hPa : -	•	: > 100	‡	cm3/1000s. : + 4.5
FUEL DELIVERY CHARACTERISTICS cm3/1000s. : 8.0 Aneroid pressure hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0 Aneroid pressure hPa :		: > 80	+	Tolerance cm3/1000 strokes : 6.0
hPa : 1600 Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0 Aneroid pressure hPa : -	FUEL DELIVERY CHA	RACTERISTICS		
cm3/1000 strokes : 167.5 Tolerance	hPa Rated speed rpm		‡ ‡	
Aneroid pressure hPa : -	cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: +- 2.0	T + + +	End of test specification sheet
	Aneroid pressure hPa	: - : 500	+++++++++++++++++++++++++++++++++++++++	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.03.96 Test oil : ISO 4113

Combination No. : 0 402 076 785

Injection pump

Pump designation : PES6P12OA72ORS3352 EP type number : 0 412 026 780

Governor

Governer design. : RSV400...750P4A611

: -1

Governer no. : 0 421 833 514

Cust. part No. : RE66449

Customer-spec. information Customer : DEERE Motor : 6081AF001 Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +- 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : +- 0.75

Start of delivery mark

 $^{\circ}$ NW after s.o.d. : 7.00 Tolerance : + 0.50

Check

tolerance "NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 700

	+ Check tolerance + cm3/1000s. : +- 3.0
Rack travel in mm : 13.90 Tolerance mm : +- 0.05	Spreed Tolerance
Del. quantity	cm3/1000 strokes : 4.0 Check tolerance
cm3/1000 strokes : 200.0	+ cm3/1000s. : 6.5
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : +- 3.0	control lever position degree : 90.0
Spreed Tolerance	tolerance degree : + 4.0
cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 12.90 Rated speed rpm : 760 Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 30.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 795
cm3/1000 strokes : +- 3.0 Check tolerance	Tolerance 1/min : + 5
cm3/1000s. : +- 5.0 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 950
cm3/1000 strokes : 6.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : 8.0	Rated speed rpm : 830
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	t control lever
GUIDE SLEEVE POSITION	position degree : 73.0 tolerance degree : + 4.0
Rated speed rpm : 800 Rack travel in mm : 0.50	Setting point w/out bumper spring
Tolerance mm : + 0.20	Rated speed rpm : 400 rack travel mm : 5.40
governor spring pre-tension	+ Testing:
click setting x : 4.00	Rated speed rpm : 400 rack travel mm : 5.90
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 700 Aneroid pressure	Rated speed rpm : 100
hPa : - Del. quantity	CRT mm min. : > 19.00
cm3/1000 strokes : 200.0 Tolerance	TORQUE CONTROL
cm3/1000 strokes : + 1.0	+

Rated speed rpm rack travel mm Tolerance mm	:::::::::::::::::::::::::::::::::::::::	+-	700 13.90 0.05	
START CUT-OUT				
Rated speed rpm	:	>	100	
Check speed 1/min	:	>	80	
BREAKAWAY			***************************************	
Rack travel in mm Rated speed rpm Tolerance 1/min		+	12.90 760 5	
STARTING FUEL DELI		ERY		
Rated speed rpm rack travel mm Tolerance mm	:	+	100 20.50 0.50	
Del. quantity cm3/1000 strokes Tolerance	:		105.0	
cm3/1000 strokes Check tolerance	:		20.0	
cm3/1000s.	:	+-	25.0	
LOW IDLE		-:		· · · · · · · · · · · · · · · · · · ·
Del. quantity cm3/1000 strokes	:		30.0	
Tolerance cm3/1000 strokes	:	+	3.0	
Check tolerance cm3/1000s. Spreed	:	+-	5.0	
Tolerance cm3/1000 strokes	:		6.0	
cm3/1000s.	:		8.0	
Tolerance cm3/1000 strokes Check tolerance	:	ati	8.0	et

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 076 786

Injection pump

Pump designation : PES6P120A720RS3352

EP type number : 0 412 026 780

Governor

Governer design. : RSV400...750P4A606

Governer no. : 0 421 833 515

Cust. part No. : RE66456

Customer-spec. information : DEERE Customer Motor : 6081AF001

Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 457 413 010

2.0 Inlet press. bar :

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0 x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

17.0 : + 1.0 Test pressure bar : Tolerance bar

Prestroke mm 3.60 : + 0.05 Tolerance mm Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

Start of delivery mark

*NW after s.o.d. : 7.00 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

14.00 travel Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 700

+	Check tolerance cm3/1000s. : +- 3.0
Rack travel in mm: 13.90 Tolerance mm: + 0.05	cm3/1000s. : +- 3.0 Spreed Tolerance
Del. quantity	cm3/1000 strokes : 4.0 Check tolerance
cm3/1000 strokes : 200.0	cm3/1000s. : 6.5
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 3.0	control lever
Spreed Tolerance	position degree : 90.0 tolerance degree : +- 4.0
cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 12.90 Rated speed rpm : 760 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 30.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 795
cm3/1000 strokes : +- 3.0 +- Check tolerance	Tolerance 1/min : +- 5
cm3/1000s. : +- 5.0 +- 5.0	rack travel mm : 0.85 Tolerance mm : + 0.55
Tolerance cm3/1000 strokes : 6.0	Rated speed rpm : 950
Check tolerance cm3/1000s. : 8.0	rack travel mm : 4.00 Rated speed rpm : 830
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	<pre>control lever position degree : 73.0 tolerance degree : +- 4.0</pre>
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 400 rack travel mm : 5.40
governor spring pre-tension	Testing:
click setting x : 4.00	Rated speed rpm : 400 rack travel mm : 5.90
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 700 + Aneroid pressure	Rated speed rpm : 100
hPa : - + Del. quantity +	CRT mm min. : > 19.00
cm3/1000 strokes : 200.0 +	TORQUE CONTROL
cm3/1000 strokes : + 1.0 +	

Rated speed rpm : 700 rack travel mm : 13.90 Tolerance mm : +- 0.05 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min 80 ; > BREAKAWAY Rack travel in mm: 12.90 Rated speed rpm : Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm 100 20.50 rack travel mm : : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 30.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance 5.0 cm3/1000s. Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.03.96 Test oil : ISO 4113

Combination No. : 0 402 736 868

Injection pump

Pump designation : PES6P12OA12ORS7351 EP type number : 0 412 726 922

Governor

Governer design. : RQV350...1100PA1173K

Governer no. : 0 421 815 439

Cust. part No. : 3928157

Customer—spec. information Customer : CDC Motor : 6CTA-A Power KW : 224.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 4.00
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 6.25 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 15.25 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 243.5	<u> </u>
		FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 1100 Aneroid pressure
Check tolerance cm3/1000s.	: +- 4.0	+ hPa : 1200 + Del. quantity
Spreed	Weeks and the second terminal terminal terminal terminal terminal terminal terminal terminal terminal terminal	+ cm3/1000 strokes : 243.5 + Tolerance
Tolerance cm3/1000 strokes	: 5.0	cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 4.0
Check tolerance cm3/1000s.	: 9.0	+ Spreed + Tolerance
Del. quantity		cm3/1000 strokes : 5.0 Check tolerance
cm3/1000 strokes Tolerance		+ cm3/1000s. : 9.0
cm3/1000 strokes Check tolerance		
cm3/1000s. Spreed	: ← 5.0	CONTROL LEVER
Tolerance cm3/1000 strokes	: 8.0	+ control lever + position degree : 119.0
Check tolerance		tolerance degree : +- 6.0
cm3/1000s.	: 12.0	RATED SPEED
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	rack travel mm : 13.60 Rated speed rpm : 1255 Tolerance 1/min : + 15
GUIDE SLEEVE TRAV	/EL	rack travel mm : 4.00
Rated speed rpm guide sleeve	: 350	+ Rated speed rpm : 1400 + Tolerance 1/min : +- 5
travel mm	: 2.11	rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance mm	: +- 0.20	+ Tolerance mm : + 0.50 + Rated speed rpm : 1500
Rated speed rpm guide sleeve	: 1159	†
travel mm Tolerance mm	: 7.79 : + 0.15	+ LOW IDLE
Rated speed rpm guide sleeve	: 726	t t cantrol lever
travel mm	: 4.80	position degree : 71.0
Tolerance mm	: - 0.25	tolerance degree : +- 6.0
Rated speed rpm guide sleeve	: 420	+ Testing:
travel mm Tolerance mm	: 3.10 : + 0.25	+ Rated speed rpm : 350 - rack travel mm : 6.60 - Tolerance mm : + 0.20
Rated speed rpm guide sleeve	: 1640	Rated speed rpm : 275
travel mm	: 13.50	+
Tolerance mm	: +- 0.50	+ CRT mm min. : > 7.80

Rated speed rpm	: 425	<u> </u>
TORQUE CONTROL		† FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm	: 15.25	Aneroid pressure hPa : 1200 Rated speed rpm : 750
Tolerance mm Rated speed rpm	: +- 0.05 : 650	Del. quantity cm3/1000 strokes : 211.5 Tolerance
rack travel mm Tolerance mm	: 13.40 : + 0.20	cm3/1000 strokes : + 3.0 Check tolerance
Rated speed rpm rack travel mm		+ cm3/1000s. : + 6.0 + Spreed + Tolerance
Tolerance mm	: + 0.10	cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 750 : 13.70 : ← 0.20	cm3/1000s. : 12.0 Aneroid pressure
ANEROID/ALTITUDE		hPa : - Rated speed rpm : 500 Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 80.0 + Tolerance + cm3/1000 strokes : + 1.0
SETTING		Check tolerance cm3/1000s. : + 3.0
Rated speed rpm Pressure hPa		PDEAKAHAY
MEASUREMENT		BREAKAWAY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm		Rack travel in mm: 13.60 Rated speed rpm: 1255 Tolerance 1/min: + 15
Rated speed rpm		+ STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 715 : 13.50 : +- 0.20	Rated speed rpm : 100 rack travel mm : 11.50 Tolerance mm : +- 0.50
Pressure hPa rack travel mm Tolerance mm	: 335 : 10.60 : +- 0.05	Del. quantity cm3/1000 strokes : 180.0 Tolerance
START CUT-OUT		
Rated speed rpm Rated speed rpm	: > 100 : < 290	+
Check speed 1/min	: > 80	LOW IDLE
Check speed 1/min	: < 300	+ Del. quantity - cm3/1000 strokes : 24.0 - Tolerance
		+ cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s.	; +	5.0
Spreed		
Tolerance cm3/1000 strokes	:	8.0
Check tolerance cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 736 872

Injection pump

Pump designation : PES6P120A120RS7370

EP type number : 0 412 726 924

Governor

Governer design. : RQV350...1100PA1177K

Governer no. : 0 421 815 443

Cust. part No. : 3928154

Customer-spec. information Customer : CDC Motor : 6CTA-A Power KW : 186.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 4.00 Tolerance mm : +- 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order : 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 5.50 Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.85 Tolerance mm : + 0.05

Del. quantity	+
cm3/1000 strokes : 216.5	+ rack travel mm : 12.40
2.20	+ Rated speed rpm : 1165
Tolerance	+ Tolerance 1/min : + 15
cm3/1000 strokes : + 1.0	1
(mg/1000 301 0RC3 1 · 110	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1300
cm3/1000s. : +- 4.0	+ Tolerance 1/min : + 5
As a second	0.50
Spreed	+ rack travel mm : 0.50
Tolerance	+ Tolerance mm : + 0.50
cm3/1000 strokes : 5.0	+ Rated speed rpm : 1400
	†
Check tolerance	†
cm3/1000s. : 9.0	
	+ LOW IDLE
Del. quantity	+
cm3/1000 strokes : 25.0	+
Tolerance	+ control lever
cm3/1000 strokes : +- 3.0	+ position degree : 68.0
Check tolerance	+ tolerance degree : +- 6.0
cm3/1000s. : +- 5.0	+
Spreed	+ Testing:
Tolerance	1
cm3/1000 strokes : 8.0	+ Rated speed rpm : 350
Check tolerance	+ rack travel mm : 6.50
cm3/1000s. : 12.0	+ Tolerance mm : + 0.20
(1127 100001 12.0	100014/100 11/11
	Rated speed rpm : 275
(D) CETTAIC OF TALLECTION DUMP	nated speed (pill). Ets
183 SELCING OF 1005 FLICK PROP	
(B) SETTING OF INJECTION PUMP	I CDT mm min ·> 8 10
WITH GOVERNOR	CRT mm min. :> 8.10
	+
	CRT mm min. :> 8.10
WITH GOVERNOR	+
	Rated speed rpm : 425
FULL LOAD DELIVERY AT FULL LOAD STOP	+
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000	Rated speed rpm : 425 TORQUE CONTROL
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50
WITH GOVERNOR FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50
WITH GOVERNOR FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50
WITH GOVERNOR FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50
WITH GOVERNOR FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10
WITH GOVERNOR FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10
WITH GOVERNOR FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever position degree : 120.0	TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 1000
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever	Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 216.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever position degree : 120.0	TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 13.85 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 13.30 Tolerance mm : + 0.20 Rated speed rpm : 1100 rack travel mm : 13.50 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 1000

Pressure hPa	1000
Rated speed rpm rack travel mm	: 1000 : 9.40
Tolerance mm	· + 0.20
Rated speed rpm	: 1000
Pressure hPa	: 765
rack travel mm	: 13.30
Tolerance mm	: +- 0.20
Pressure hPa	: 325
rack travel mm	: 10.65
Tolerance mm	
START CUT-OUT	
Rated speed rpm	: > 100
Rated speed rpm	: < 290
Check	
speed 1/min	: > 80
Check	700
speed 1/min	: < 300
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: 1200
Rated speed rpm Del. quantity	: 650
cm3/1000 strokes	: 208.0
Tolerance	
cm3/1000 strokes	: +- 3.0
Check tolerance cm3/1000s.	: + 6.0
Spreed	
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	: 12.0
cm3/1000s.	: 12.0
Aneroid pressure	
hPa	
Rated speed rpm	: 1000
Del. quantity cm3/1000 strokes	: 96.5
Tolerance	
cm3/1000 strokes	: + 1.0
Check tolerance	70
cm3/1000s.	: +- 3.0
BREAKAWAY	

Rated speed rpm	: 1165
Tolerance 1/min	: + 15
STARTING FUEL DE	LIVERY

100 Rated speed rpm 12.50 rack travel mm Tolerance mm : +- 0.50 Del. quantity cm3/1000 strokes : 200.0 Tolerance cm3/1000 strokes : +- 20.0Check tolerance cm3/1000s. : +- 25.0

LOW IDLE

Del. quantity cm3/1000 strokes : 25.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

End of test specification sheet

Rack travel in mm: 12.40

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.03.96 Test oil : ISO 4113

Combination No. : 0 402 736 873

Injection pump

Pump designation : PES6P120A120RS7265 EP type number : 0 412 726 924

Governor

Governer design. : RQV350...1100PA1178K

Governer no. : 0 421 815 444

Cust. part No. : 3928152

Customer-spec. information Customer : CDC Motor : 6CTA-A : 167.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 : +- 0.1 Tolerance bar

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 015

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.00 Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 5.25

Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.25 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 199.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes	: +- 1.0	Rated speed rpm : 1100 Aneroid pressure
Check tolerance cm3/1000S.	: +- 4.0	hPa : 1200 + Del. quantity + cm3/1000 strokes : 199.0
Spreed Tolerance cm3/1000 strokes	; 5.0	Tolerance : +- 1.0 Check tolerance
Check tolerance cm3/1000s.	: 9.0	- cm3/1000s. : + 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0
Del. quantity cm3/1000 strokes Tolerance	: 22.0	Check tolerance cm3/1000s. : 9.0
cm3/1000 strokes Check tolerance		CONTROL LEVED
cm3/1000S. Spreed Tolerance	: +- 5.0	+ CONTROL LEVER + control lever
cm3/1000 strokes Check tolerance cm3/1000s.	: 8.0 : 12.0	+ position degree : 115.0 + tolerance degree : + 6.0
		RATED SPEED
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	+ rack travel mm : 11.90 + Rated speed rpm : 1265 + Tolerance 1/min : + 15
GUIDE SLEEVE TRAN	/EL	rack travel mm : 4.00
Rated speed rpm guide sleeve		Rated speed rpm : 1385 Tolerance 1/min : +- 5
travel mm Tolerance mm	: 2.11 : +- 0.20	+ rack travel mm : 0.50 + Tolerance mm : + 0.50 + Rated speed rpm : 1450
Rated speed rpm guide sleeve travel mm	: 1159 : 7.79	±
Tolerance mm	: +- 0.15	LOW IDLE
Rated speed rpm guide sleeve travel mm	: 726 : 4.80	control lever position degree : 70.0
Tolerance mm Rated speed rpm	: +- 0.20 : 420	tolerance degree : + 6.0 Testing:
guide sleeve travel mm	: 3.10	+ Rated speed rpm : 350
Tolerance mm Rated speed rpm	: +- 0.25 : 1640	rack travel mm : 6.40 Tolerance mm : + 0.20
guide sleeve travel mm	: 13.50 : + 0.50	Rated speed rpm : 275 CRT mm min. : > 7.90
Tolerance mm	. — 0.00	- CKI WAN WITHI

Rated speed rpm	: 425	+ Rated speed rpm : 650 + Del. quantity
TORQUE CONTROL		cm3/1000 strokes : 188.0 Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 13.25 : ← 0.05	+ cm3/1000 strokes : +- 3.0 + Check tolerance + cm3/1000s. : +- 6.0 + Spreed
Rated speed rpm rack travel mm Tolerance mm	: 12.40	Tolerance cm3/1000 strokes : 8.0 check tolerance cm3/1000s. : 12.0
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 13.00 : + 0.10	Aneroid pressure hPa : - Rated speed rpm : 1100 Del. quantity
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
SETTING		+ cm3/1000s. : + 3.0
Rated speed rpm Pressure hPa	: 1100 : 1200	BREAKAWAY
MEASUREMENT		Rack travel in mm: 11.90
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 8.70	Rated speed rpm : 1265 Tolerance 1/min : + 15
Rated speed rpm		STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 520	Rated speed rpm : 100 rack travel mm : 12.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 215.0
Pressure hPa rack travel mm Tolerance mm	: 255 : 9.75 : +- 0.05	Tolerance : + 20.0 Check tolerance cm3/1000s. : + 25.0
START CUT-OUT		†
Rated speed rpm Rated speed rpm		LOW IDLE
Check speed 1/min Check	: > 80	Del. quantity cm3/1000 strokes : 22.0 Tolerance
speed 1/min	: < 300	cm3/1000 strokes : + 3.0 Check tolerance
FUEL DELIVERY CHA	RACTERISTICS	- cm3/1000s. : +- 5.0 - Spreed
Aneroid pressure hPa	: 1200	Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s.	;	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 736 905

Injection pump

Pump designation : PES6P120A120RS7416 EP type number : 0 412 726 959

Governor

Governer design. : RQV400...1250PA1160

: -3K

: 0 421 815 513 Governer no.

Cust. part No. : 3928145

Customer-spec. information Customer : CDC Motor : 6BTA-A Power KW : 119.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

: 40 : +- 2.0 temp. °C Tolerance °C

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter :

x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

17.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + - 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 6.25 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 13.35 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 153.5	<u> </u>
Tolerance	_ + FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 1.0	Rated speed rpm : 1250 Aneroid pressure
Check tolerance cm3/1000s. : + 4.0	hPa : 1200 Del. quantity
Spreed Tolerance	_ + cm3/1000 strokes : 153.5
cm3/1000 strokes : 8.0	Check tolerance cm3/1000s. : + 4.0
Check tolerance cm3/1000s. : 12.0	Spreed Tolerance
Del. quantity cm3/1000 strokes : 15.5	+ cm3/1000 strokes : 8.0 + Check tolerance + cm3/1000s. : 12.0
Tolerance cm3/1000 strokes : +- 3.0	-
Check tolerance cm3/1000S. : +- 5.0 Spreed	CONTROL LEVER
Tolerance cm3/1000 strokes : 4.0	control lever position degree : 117.0
Check tolerance cm3/1000s. : 8.0	tolerance degree : +- 6.0
	RATED SPEED
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ rack travel mm : 12.30 + Rated speed rpm : 1325 + Tolerance 1/min : + 15
GUIDE SLEEVE TRAVEL	rack travel mm : 4.00 Rated speed rpm : 1480
Rated speed rpm : 400 guide sleeve	Tolerance 1/min : +- 5
travel mm : 1.44 Tolerance mm : +- 0.20	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 1329 guide sleeve	+ Rated speed rpm : 1550
travel mm : 7.83 Tolerance mm : + 0.15	LOW IDLE
Rated speed rpm : 939 guide sleeve	t control lever
travel mm : 5.18 Tolerance mm : + 0.25	position degree : 71.0 tolerance degree : + 6.0
Rated speed rpm : 640 guide sleeve	Testing:
travel mm : 3.56 Tolerance mm : + 0.25	Rated speed rpm : 420 rack travel mm : 6.00
Rated speed rpm : 1690 guide sleeve	Tolerance mm : +- 0.20 + Rated speed rpm : 400
travel mm : 11.50 Tolerance mm : +- 0.50	CRT mm min. : > 5.80
	7

Rated speed rpm	: 425	<u> </u>
**************************************		FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		Annual nanonna
Rated speed rpm	: 1250	+ Aneroid pressure + hPa : 1200
rack travel mm		+ Rated speed rpm : 800
Tolerance mm		+ Del. quantity
		+ cm3/1000 strokes : 133.0
Rated speed rpm		+ Tolerance
rack travel mm		+ cm3/1000 strokes : +- 3.0
Tolerance mm	: ← 0.20	+ Check tolerance
Dated speed nom	: 500	+ cm3/1000s. : +- 6.0
Rated speed rpm rack travel mm		+ Spreed + Tolerance
Tolerance mm	: + 0.20	+ cm3/1000 strokes : 8.0
TOCCIONO HAI		Check tolerance
Rated speed rpm	: 900	+ cm3/1000s. : 12.0
rack travel mm	: 12.40	+
Tolerance mm	: + 0.20	+ Aneroid pressure
		+ hPa : −
Allenantin		Rated speed rpm : 1250
ANEROID/ALTITUDE		+ Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 106.0
		+ Tolerance + cm3/1000 strokes : +- 1.0
CETTING		+ Check tolerance
SETTING		+ cm3/1000s. : +- 3.0
Rated speed rpm	: 1250	T 01107 10000 T 3.0
Pressure hPa		
		BREAKAWAY
MEASUREMENT		+
Pressure hPa		Rack travel in mm: 12.30
Rated speed rpm	1250	Rated speed rpm : 1325
rack travel mm		+ Tolerance 1/min : +- 15
Tolerance mm		+
		+
Rated speed rpm	: 1250	+ STARTING FUEL DELIVERY
Pressure hPa	: 350	T GIVELTING LOCK NELTACK!
rack travel mm	: 12.70	Rated speed rpm : 100
Tolerance mm		+ rack travel mm : 13.50
		Tolerance mm : + 0.50
Pressure hPa	: 265	+ Del. quantity
rack travel mm	: 11.80	+ cm3/1000 strokes : 155.0
Tolerance mm	: + 0.20	† Tolerance
		+ cm3/1000 strokes : + 20.0
START CUT-OUT		
SIAKI CUITOUI		I (1113/1000). ; = 23.0
Rated speed rpm	: > 100	1
Rated speed rpm		1
		1
Check		LOW IDLE
speed 1/min	: > 80	+
Check		+ Del. quantity
speed 1/min	: < 290	+ cm3/1000 strokes : 15.5
		† Tolerance
		+ cm3/1000 strokes : $+$ 3.0

Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.03.96 Test oil : ISO 4113

Combination No. : 0 402 776 822

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design. : RSV400...900P4A608

Governer no. : 0 421 833 493

Cust. part No. : RE64214

Customer-spec. information

Customer : DEERE
Motor : 6081 AF001

Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : +- 0.05
Check

Lneck

tolerance mm : + 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference * CS : 2.50

BASIC SETTING

Rated speed rpm : 850

<u>.</u>	- Check tolerance
Rack travel in mm : 12.85 Tolerance mm : + 0.05	cm3/1000s. : 9.0
Del. quantity cm3/1000 strokes : 229.0	CONTROL LEVER
Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 103.0 tolerance degree : + 4.0
Check tolerance cm3/1000s. : +- 4.0	- RATED SPEED
Spreed	- rack travel mm : 11.85 - Rated speed rpm : 920 - Tolerance 1/min : +- 5
cm3/1000 strokes : 5.0 -	rack travel mm : 4.00
Check tolerance cm3/1000s. : 9.0	- Rated speed rpm : 955 - Tolerance 1/min : +- 5
Del. quantity - cm3/1000 strokes : 20.0 - Tolerance -	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1025
cm3/1000 strokes : +- 3.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 5.0 - Spreed - Tolerance -	Rated speed rpm : 970
cm3/1000 strokes : 8.0	LOW IDLE
Check tolerance cm3/1000s. : 12.0	- LOW IDEE
	control lever position degree : 79.0 tolerance degree : + 4.0
cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring
cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION	control lever position degree : 79.0 tolerance degree : + 4.0
cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400
cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing: Rated speed rpm : 400
Cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 79.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing:
Cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 850 Aneroid pressure	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing: Rated speed rpm : 400 rack travel mm : 5.50
Cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 850 Aneroid pressure hPa : - Del. quantity	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing: Rated speed rpm : 400 rack travel mm : 5.50 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 850
Cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 850 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 229.0 Tolerance	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing: Rated speed rpm : 400 rack travel mm : 5.50 Tolerance mm : + 0.10 TORQUE CONTROL
Cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 850 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 229.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing: Rated speed rpm : 400 rack travel mm : 5.50 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 850 rack travel mm : 12.85
Cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 850 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 229.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 79.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.00 Testing: Rated speed rpm : 400 rack travel mm : 5.50 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 850 rack travel mm : 12.85

Check speed 1/min :> 80 **BREAKAWAY** 11.85 Rack travel in mm: Tolerance 1/min : +-920 STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.50 : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 20.0Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance

End of test specification sheet

12.0

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 402 776 823

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design. : RSV400...900P4A609

Governer no. : 0 421 833 494

Cust. part No. : RE64162

Customer—spec. information Customer : DEERE

Motor : 6081 AF001 Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : ← 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

°NW after s.o.d. : 7.00Tolerance : \leftarrow 0.50

Check

tolerance °NN : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 850	Tolerance cm3/1000 strokes : 5.0
Rack travel in mm: 12.85 Tolerance mm: + 0.05	Check tolerance cm3/1000s. : 9.0
Del. quantity cm3/1000 strokes : 229.0	CONTROL LEVER
Tolerance cm3/1000 strokes : +- 1.0	<pre>control lever position degree : 103.0 tolerance degree : +- 4.0</pre>
Check tolerance cm3/1000S. : ← 4.0	RATED SPEED
Spreed Tolerance cm3/1000 strokes : 5.0	rack travel mm : 11.85 Rated speed rpm : 920 Tolerance 1/min : +- 5
Check tolerance cm3/1000S. 9.0	rack travel mm : 4.00 Rated speed rpm : 955 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 3.0	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1025
Check tolerance cm3/1000s. : + 5.0 + 5.0	rack travel mm : 4.00 Rated speed rpm : 970
Tolerance cm3/1000 strokes : 8.0 check tolerance	
cm3/1000s. : 12.0	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 79.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
governor spring + pre-tension +	Rated speed rpm : 400 rack travel mm : 5.00
click setting x : 5.00	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 400 rack travel mm : 5.50 Tolerance mm : +- 0.10
Rated speed rpm : 85G Aneroid pressure hPa : -	Rated speed rpm : 100
Del. quantity cm3/1000 strokes : 229.0	CRT mm min. : > 19.00
cm3/1000 strokes : +- 1.0 +- Check tolerance	TORQUE CONTROL
cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 850 rack travel mm : 12.85 Tolerance mm : + 0.05

START CUT-OUT 100 Rated speed rpm :> Check speed 1/min ; > 80 **BREAKAWAY** Rack travel in mm : 11.85 Tolerance 1/min : + STARTING FUEL DELIVERY 100 Rated speed rpm rack travel mm 20.50 : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : +- 20.0Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance cm3/1000s. 12.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 776 832

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design. : RSV400...750P4A609

: -1

: D 421 833 518 Governer no.

Cust. part No. : RE66450

Customer-spec. information Customer : DEERE

: 6081 AF001 Motor : 150.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm 3.60 : +- 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.30

Check

: + - 0.75tolerance °NW

Start of delivery blocking

*NW after s.o.d. : 7.00

: +- 0.50 Tolerance Check

tolerance *NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

14.00 travel Difference ° CS : 2.50

BASIC SETTING

700 Rated speed rpm :

G01

Rack travel in mm: 12.90	Check tolerance cm3/1000s. : +- 4.0 Spreed
Tolerance mm : + 0.05	Tolerance cm3/1000 strokes : 5.0
Del. quantity cm3/1000 strokes : 223.0	Check tolerance cm3/1000s. : 9.0
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 91.0
Spreed Tolerance	tolerance degree : +- 4.0
cm3/1000 strokes : 5.0	RATED SPEED
Check tolerance cm3/1000s. : 9.0	rack travel mm : 11.90 Rated speed rpm : 760 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 26.5 Tolerance	rack travel mm : 4.00 Rated speed rpm : 790
cm3/1000 strokes : +- 3.0 +-	Tolerance 1/min : +- 5
cm3/1000s. : +- 5.0 +-	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 900
cm3/1000 strokes : 8.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : 12.0	Rated speed rpm : 820
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 74.0 tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Rated speed rpm : 400 rack travel mm : 5.30
governor spring pre-tension	Testing:
click setting x : 4.00	Rated speed rpm : 400 rack travel mm : 5.80
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 700 Aneroid pressure	Rated speed rpm : 100
hPa : - + Del. quantity +	CRT mm min. : > 19.00
cm3/1000 strokes : 223.0 +	TORQUE CONTROL
cm3/1000 strokes : + 1.0 +	

rack travel mm Tolerance mm	:	+	700 12.90 0.05	
START CUT-OUT		·		
Rated speed rpm	:	>	100)
Check speed 1/min	:	>	80)
BREAKAWAY		· · · ·		
Rack travel in mm Rated speed rpm Tolerance 1/min	:	+	11.90 760 5	
STARTING FUEL DELI		RY		
Rated speed rpm rack travel mm Tolerance mm	:	+-	100 20.50 0.50	
Del. quantity cm3/1000 strokes Tolerance	:		105.0	ı
cm3/1000 strokes Check tolerance			20.0	
cm3/1000S.	:		25.0	
LOW IDLE				
Del. quantity cm3/1000 strokes	:		26.5	
Tolerance cm3/1000 strokes Check tolerance	:	+-	3.0	
cm3/1000s. Spreed	:	†	5.0	
Tolerance cm3/1000 strokes Check tolerance	:		8.0	
cm3/1000s.	:		12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 776 833

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design. : RSV400...750P4A608

: -1

: 0 421 833 519 Governer no.

Cust. part No. : RE66457

Customer-spec. information Customer : DEERE

: 6081 AF001 Motor

: 150.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : +- 1.0

Prestroke mm : 3.60 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

: **←** 0.75 tolerance °NW

Start of delivery blocking

*NW after s.o.d. : 7.00

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

14.00 travel Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 700

	+ Check tolerance
Rack travel in mm : 12.90 Tolerance mm : + 0.05	+ cm3/1000s. : +- 4.0 + Spreed + Tolerance
Del. quantity cm3/1000 strokes : 223.0	+ cm3/1000 strokes : 5.0 + Check tolerance + cm3/1000s. : 9.0
Tolerance	
cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance : +- 4.0	control lever position degree : 91.0
Spreed Tolerance	tolerance degree : +- 4.0
cm3/1000 strokes : 5.0	RATED SPEED
Check tolerance cm3/1000s. : 9.0	rack travel mm : 11.90 Rated speed rpm : 760 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 26.5 Tolerance	+ rack travel mm : 4.00 + Rated speed rpm : 790
cm3/1000 strokes : +- 3.0 Check tolerance	Tolerance 1/min : + 5
cm3/1000s. : +- 5.0 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 900
cm3/1000 strokes : 8.0	+
Check tolerance cm3/1000s. : 12.0	rack travel mm : 4.00 Rated speed rpm : 820
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 74.0
Rated speed rpm : 800	tolerance degree : + 4.0
Rack travel in mm: 0.50	Setting point w/out bumper spring
Tolerance mm : +- 0.20	Rated speed rpm : 400 rack travel mm : 5.30
governor spring	Testing:
click setting x : 4.00	Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.80 Tolerance mm : + 0.10
Rated speed rpm : 700 - Aneroid pressure	Rated speed rpm : 100
hPa : -	CRT mm min. : > 19.00
Del. quantity - cm3/1000 strokes : 223.0 - Tolerance -	TORQUE CONTROL
cm3/1000 strokes : +- 1.0	- TORGOL GORATROL

Rated speed rpm rack travel mm Tolerance mm	+	700 12.90 0.05	
START CUT-OUT			· · · · · · · · · · · · · · · · · · ·
Rated speed rpm	; >	100	
Check speed 1/min	; >	80	
BREAKAWAY			
Rack travel in mm Rated speed rpm Tolerance 1/min		11.90 760 5	
STARTING FUEL DELI	LVERY	 	
Rated speed rpm rack travel mm Tolerance mm	: : +-	100 20.50 0.50	
Del. quantity cm3/1000 strokes Tolerance	:	105.0	
cm3/1000 strokes Check tolerance	: +-	20.0	
cm3/1000s.	: +-	25.0	
LOW IDLE	······································		
Del. quantity cm3/1000 strokes	:	26.5	
Tolerance cm3/1000 strokes	: +-	3.0	
Check tolerance cm3/1000S. Spreed	: +-	5.0	
Tolerance cm3/1000 strokes	:	8.0	
Check tolerance cm3/1000S.	:	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 400 074 089

Injection pump

Pump designation : PES4M55C32ORS175 EP type number : 0 410 054 957

Governor

Governer design. : RSV350...1500M0C353

: -10

Governer no. : 0 420 033 046

Cust, part No. :

Customer—spec. information Customer : MB-NFZ

Motor : 0M601 (2,3L)

Power KW : 44.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 15.50 Tolerance : + 0.20

Check

tolerance °NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1480

Rack travel in mm : 11.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 37.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 1.5

Spreed

* 1	
Tolerance + cm3/1000 strokes : 2.5	CRT mm min. : > 20.10
cms/1000 strokes : 2.3	(K) mm min. : > 20.10
Check tolerance	rack travel mm : 5.40
cm3/1000s. : 3.0	Rated speed rpm : 350
	nated opeca (piii : 550
Rated speed rpm : 350	SET IDLE AUXILIARY SPRING
Del. quantity	
cm3/1000 strokes : 7.0 +	rack travel mm : 2.00
Tolerance +	
cm3/1000 strokes : + 1.0 +	
Spreed	TORQUE CONTROL
Tolerance	Data dama dama a 4400
cm3/1000 strokes : 1.0	Rated speed rpm : 1480
†	rack travel mm : 11.75 Tolerance mm : +- 0.05
(B) SETTING OF INJECTION PUMP	roterance min : +- 0.05
WITH GOVERNOR	Rated speed rom : 1100
THE COLUMN TO THE COLUMN TO	rack travel mm : 12.60
	Rated speed rpm : 1100 rack travel mm : 12.60 Tolerance mm :+ 0.10
GUIDE SLEEVE POSITION +	
+	Rated speed rpm : 1350
Rated speed rpm : 800 +	rack travel mm : 12.20 Tolerance mm : + 0.10
+	Tolerance mm : + 0.10
Rack travel in mm: 0.65	
Tolerance mm : + 0.35	
FULL LOAD DELIVERY AT FULL LOAD STOP	FUEL DELIVERY CHARACTERISTICS
TOLL EDAD DELIVERY AT TOLL EDAD STOR	TOLL VELIVERY CHARACTERISTICS
Rated speed rpm : 1480	Ref. pressure
Ref. pressure	ALDA / ADA hPa : -
Ref. pressure + ALDA / ADA hPa : - +	Rated speed rpm : 1100
Del. quantity +	Del. quantity
cm3/1000 strokes : 37.5 +	cm3/1000 strokes : 40.7
Tolerance	Tolerance
cm3/1000 strokes : + 0.5	cm3/1000 strokes : +- 1.0
Check tolerance +	Check tolerance
cm3/1000s. : + 1.5 +	cm3/1000s. : + 2.0
Spreed	Spreed
Tolerance + cm3/1000 strokes : 2.5 +	Tolerance cm3/1000 strokes : 2.5
cm3/1000 strokes : 2.5 + Check tolerance +	Check tolerance
cm3/1000s. : 3.0	cm3/1000s. : 3.0
1 3.0	· 010
	Ref. pressure
RATED SPEED +	ALDA / ADA hPa : -
+	Rated speed rpm : 1350
rack travel mm : 1.00 +	Spreed
Tolerance mm : + 0.70 +	Del. quantity
Rated speed rpm : 1750 +	cm3/1000 strokes : 39.5
†	Tolerance
†	cm3/1000 strokes : +- 0.8 Check tolerance
LOW IDLE	cm3/1000s. : +- 1.8
Tow role	Spreed : +- 1.8
Load pick-up	Tolerance
	cm3/1000 strokes : 2.5
Rated speed rpm : 100	Check tolerance
	cm3/1000s. : 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : > 20.10
Del. quantity
cm3/1000 strokes : 52.0
Spreed
Tolerance
cm3/1000 strokes : 6.0
Check tolerance
cm3/1000s. : 6.0

LOW IDLE

Del. quantity cm3/1000 strokes : 7.8 Check tolerance cm3/1000s. : +- 2.3 Spreed Check tolerance cm3/1000s. : 1.5

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 06.03.96 Test oil : ISO 4113 8

Combination No.	: 0 400 074 878

Injection pump	
Pump designation	: PES4M55C32ORS188
EP type number	: 0 410 054 935

Governor						
Governer	design.	:	R	SF40(3/200	28MOC
Governer	no.	;	0	420	021	283

Customer-spec.	information	

Customer	: DPICO
Motor	: 0M601-2.31
Power KW	: 58.0

TEST BENCH REQUIREMENTS

Test oil inlet		
temp. °C		40
Tolerance °C	: +-	2.0

Overflow	valve	:	1	469	990	351

Inlet	press.	bar	:	1.0

Test	nozzle	holde
iest	HOZZLE	notae

TODE TIOEEC	1000					
assembly		:	1	688	901	111

Opening pressure

bar		:	148.5
Tolerance	bar	: +-	1.5

Test	lines	•	1	680	750	014
1626	CHICO	•	•	000	1 20	\circ

Outside	diameter	:	6.0

REMARKS

Set	INJECTION PUMP SETTING VALUES equal delivery quant. values	

BEGINNING OF DELIVERY

Test pressi	ure bar	:	26.0
Tolerance	bar	: +-	1.0

Prestroke mm	:	2.05
Tolerance mm	: +-	0.05
Check		

Phasing :	C) -9 0-1	80-270
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Start of delivery blocking

°NW after Tolerance	s.o.d.	15.50 - 0.20
Check		

tolerance	°NW	*	+-	0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm	:	1000	

Rack travel	in	mm	:		12.15
Tolerance mm	7		:	+	0.05

Del. quantity		
cm3/1000 strokes	:	38.5

Tolerance		
cm3/1000 strokes	: +-	0.5

Check tolerance		
cm3/1000s.	: +	1.5

	_	
Spreed		
Tolerance		

Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000
Rated speed rpm : 400	CRT man max. : 1.45
Rack travel in mm: 4.90 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 6.5	control lever
cm3/1000 strokes : +- 0.5 Spreed Tolerance	position degree : 12.5 tolerance degree : +- 2.0
cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 4.90
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 500 rack travel mm : 3.40 Tolerance mm : +- 0.10
Rack travel in mm : 6.25 Tolerance mm : +- 0.25	Load pick-up
<u> </u>	Rated speed rpm : 250
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : 13.00
Rated speed rpm : 1000 + Ref. pressure +	Rated speed rpm : 1000
ALDA / ADA hPa : 1100 + Del. quantity	CRT mm max. : 1.45
cm3/1000 strokes : 38.5 + Tolerance +	rack travel mm : 4.90 Rated speed rpm : 400
cm3/1000 strokes : + 0.5 + Check tolerance	
cm3/1000s. : + 1.5 + Spreed	TORQUE CONTROL
Tolerance + cm3/1000 strokes : 2.5 +	Rated speed rpm : 1000
Check tolerance cm3/1000s. : 3.0	rack travel mm : 12.15 Tolerance mm : + 0.05
RATED SPEED	Rated speed rpm : 2000 rack travel mm : 12.15 Tolerance mm : +- 0.10
control lever position degree : 50.0	ADJUSTMENT TEST ADA/ALDA
rack travel mm : 7.60 Rated speed rpm : 2250	SETTING
rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2550	Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa : 940 rack travel mm : -0.10 Tolerance mm : +- 0.10
SET IDLE CONTROL LEVER POSITION	MEASUREMENT

Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	: 1000 : 900 : -0.40 : + 0.10 : 1000 : 750 : -1.50 : + 0.20	LOW IDLE Rated speed rpm : 400 rack travel mm : 4.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 7.8 Check tolerance cm3/1000s. : + 2.3 Spreed Check tolerance cm3/1000s. : 1.5
FUEL DELIVERY CHA	ARACTERISTICS	<u> </u>
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 42.0	Grad : > 47.00 Grad : < 44.50
cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +- 1.0 : +- 2.0	SETTING PNEUMATIC FAST IDLE (ELA)
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 2.5 : 3.0	control lever position degree : 12.5 tolerance degree : +- 2.0 Rated speed rpm : 425
HIGH IDLE Ref. pressure ALDA / ADA hPa	: 1100	Rack travel in mm: 8.70 Tolerance mm: + 0.80 Del. quantity cm3/1000 strokes: 22.0 Tolerance cm3/1000 strokes: + 3.5
STARTING FUEL DEL		+ Check tolerance + cm3/1000s. : +- 4.5 Vacuum hPa : 400.0
Rated speed rpm rack travel mm Tolerance mm Del. quantity um3/1000 strokes	: +- 1.50	SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)
Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Spreed Tolerance	: +- 4.0 : +- 5.0	control lever position degree : 12.5 tolerance degree : +- 2.0
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0 : 6.0	control lever position degree : 50.0 ADJUSTMENT control lever
		+ position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 400

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 400 074 879

Injection pump

Pump designation : PES4M55C32ORS188 EP type number : 0 410 054 935

Governor

Governer design. : RSF400/2000M80 Governer no. : 0 420 021 281

Cust. part No. :

Customer-spec. information

Customer : DPICO : OM601-2.3L

Power KW : 58.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : +- 0.05
Check

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 15.50 Tolerance : + 0.20

Check

tolerance °NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.15
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 38.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 1.5

Spreed

Tolerance cm3/1000 strokes : 2.5

rokes: 2.5

Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000
Rated speed rpm : 400	CRT mm max. : 1.45
Rack travel in mm: 4.90 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 6.5 Tolerance cm3/1000 strokes : +- 0.5 Spreed	control lever position degree : 14.0 tolerance degree : + 2.0
Tolerance cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 400
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 4.90 SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 500 rack travel mm : 3.40 Tolerance mm : +- 0.10
Rack travel in mm : 6.25 Tolerance mm : + 0.25	Load pick-up
	+ Rated speed rpm : 250 +
FULL LOAD DELIVERY AT FULL LOAD STOP	+ CRT mm min. : 12.30
Rated speed rpm : 1000 Ref. pressure	Rated speed rpm : 1000
ALDA / ADA hPa : - Del. quantity	CRT mm max. : 1.45
cm3/1000 strokes : 38.5 Tolerance cm3/1000 strokes : +- 0.5	rack travel mm : 4.90 Rated speed rpm : 400
Check tolerance cm3/1000s. : +- 1.5 Spreed	TORQUE CONTROL
Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000 rack travel mm : 12.15 Tolerance mm : + 0.05
RATED SPEED	Rated speed rpm : 2000 rack travel mm : 12.15 Tolerance mm : + 0.10
control lever position degree : 50.0	
rack travel mm : 7.40 Reted speed rpm : 2250	FUEL DELIVERY CHARACTERISTICS Ref. pressure
rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2550	+ ALDA / ADA hPa : - Rated speed rpm : 2000 Del. quantity cm3/1000 strokes : 42.0
SET IDLE CONTROL LEVER POSITION	+ Tolerance + cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 2.5	control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 425 Rack travel in mm : 8.70
HIGH IDLE		Tolerance mm : + 0.80 Del. quantity cm3/1000 strokes : 22.0 Tolerance
Ref. pressure ALDA / ADA hPa	: -	cm3/1000 strokes : +- 3.5 Check tolerance cm3/1000s. : +- 4.5 Vacuum hPa : 400.0
STARTING FUEL DEL	LIVERY	+
Rated speed rpm rack travel mm Tolerance mm Del. quantity		SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)
cm3/1000 strokes Tolerance cm3/1000 strokes	: +- 4.0	control lever position degree : 14.0 tolerance degree : +- 2.0
Check tolerance cm3/1000S. Spreed Tolerance	: + 5.0	control lever position degree : 50.0
cm3/1000 strokes Check tolerance cm3/1000s.		ADJUSTMENT control lever position degree : 50.0
LOW IDLE		TECTIALS DAISHMATTS SHATES DEVICE
Rated speed rpm rack travel mm Tolerance mm	: 400 : 4.90 : ← 0.10	TESTING PNEUMATIC SHUTOFF DEVICE Rated speed rpm : 400
Del. quantity cm3/1000 strokes Check tolerance cm3/1000S. Spreed	: 7.8 : +- 2.3	End of test specification sheet
Check tolerance cm3/1000s.	: 1.5	
Grad	: > 47.00	
Grad	: < 44.50	‡
Grad SETTING PNEUMATIC		

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 400 074 882

Injection pump

Pump designation : PES4M55C32ORS184 EP type number : 0 410 054 938

Governor

Governer design. : RSF375/1700M77-1 Governer no. : 0 420 021 275

Cust. part No. :

Customer—spec. information
Customer : MB-PKW
Motor : OM601-2.3L
Power KW : 50.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : +- 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 16.50 Tolerance : +- 0.20 Check

CHECK

tolerance °NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1700

Rack travel in mm : 11.50
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 39.0

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 1.5

Spreed Tolerance

Check tolerance 3.0 cm3/1000s. 1000 Rated speed rpm Rated speed rpm 375 1.45 CRT mm max. : Rack travel in mm : 5.00 : + 0.10Tolerance mm LOW IDLE Del. quantity cm3/1000 strokes : 6.5 Tolerance control lever cm3/1000 strokes : +-0.5 position degree 14.0 Spreed tolerance degree : +-2.0 Tolerance cm3/1000 strokes : 1.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm 5.00 (B) SETTING OF INJECTION PUMP WITH GOVERNOR SET IDLE AUXILIARY SPRING 450 Rated speed rpm 3.60 IDLE STAGE rack travel mm : Tolerance mm : + 0.10Rack travel in mm: 6.25 Load pick-up 0.25 Tolerance mm Rated speed rpm 250 FULL LOAD DELIVERY AT FULL LOAD STOP CRT mm min. : > 10.00 Rated speed rpm 1700 Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa 1100 CRT mm max. : 1.45 Del. quantity 5.00 cm3/1000 strokes : 39.0 rack travel mm Tolerance Rated speed rpm 375 0.5 cm3/1000 strokes : +-Check tolerance 1.5 cm3/1000s. TORQUE CONTROL Spreed Tolerance 2.5 cm3/1000 strokes : Rated speed rpm 1700 Check tolerance rack travel mm 11,50 cm3/1000s. 3.0 Tolerance mm : +- 0.05 1000 Rated speed rpm 11.50 RATED SPEED rack travel mm Tolerance mm : +- 0.20 control lever position degree 50.0 ADJUSTMENT TEST ADA/ALDA 6.70 SETTING rack travel mm Rated speed rpm 2000 Rated speed rpm 1000 0.50 Ref. pressure rack travel mm 940 +- 0.50 ALDA / ADA hPa Tolerance mm -0.10rack travel mm Rated speed rpm 2300 : + - 0.10Tolerance mm **MEASUREMENT** SET IDLE CONTROL LEVER POSITION

		+	
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	: 900 : -0.40 : +- 0.10 : 1000	Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Check tolerance cm3/1000s. Spreed Check tolerance cm3/1000s.	: 5.00 : \(\to \) 0.10
		- ‡	
FUEL DELIVERY CHA	RACTERISTICS	Grad	: > 47.00
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity	: 1100 : 1000	Grad	: < 44.50
cm3/1000 strokes Tolerance		SETTING PNEUMATIC	FAST IDLE (ELA)
cm3/1000 strokes Check tolerance	: +- 1.0	t control lever	
cm3/1000s. Spreed	: 2.0	position degree tolerance degree	
Tolerance cm3/1000 strokes	: 2.5	Rated speed rpm	: 425
Check tolerance cm3/1000s.	: 3.0	Rack travel in mm Tolerance mm Del. quantity	: +- 0.80
HIGH IDLE		cm3/1000 strokes Tolerance	
Ref. pressure		+ cm3/1000 strokes - Check tolerance	: +- 3.5
ALDA / ADA hPa	: 1100	cm3/1000s. Vacuum hPa	: +- 4.5 : 400.0
STARTING FUEL DEL	IVERY	SETTING/TESTING E	TECTRONIC TOLE
Rated speed rpm rack travel mm Del. quantity	: 100 : > 20.10	REGULATION (ELR)	FECINOALC INFE
cm3/1000 strokes Tolerance	: 59.0	control lever position degree	: 14.0
cm3/1000 strokes Check tolerance	: +- 4.0	tolerance degree	
cm3/1000s. Spreed Tolerance	: ← 5.0	control lever position degree	: 50.0
cm3/1000 strokes Check tolerance	: 6.0	ADJUSTMENT	
cm3/1000s.	: 6.0	control lever position degree	: 50.0

LOW IDLE

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 375

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 400 074 884

Injection pump

Pump designation : PES4M55C32ORS184 EP type number : 0 410 054 938

Governor

Governer design. : RSF375/1900M77 Governer no. : 0 420 021 273

Cust. part No. :

Customer—spec. information
Customer : MB-PKW
Motor : OM601-2.31

Power KW : 58.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 16.50 Tolerance : +- 0.20

Check

tolerance "NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1850

Rack travel in mm: 12.30 Tolerance mm: + 0.05

Del. quantity cm3/1000 strokes : 42.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : + 1.5

Spreed Tolerance

Charle datamana		
Check tolerance cm3/1000s.	: 3.0	Rated speed rpm : 1000
Rated speed rpm	+	CRT mm max. : 1.45
Rack travel in mm Tolerance mm Del. quantity		LOW IDLE
cm3/1000 strokes	: 6.5	
Tolerance cm3/1000 strokes Spreed	: +- 0.5	control lever position degree : 14.0 tolerance degree : +- 2.0
Tolerance cm3/1000 strokes	: 1.0	Setting point w/out bumper spring Rated speed rpm : 375
(B) SETTING OF INJ	ECTION PUMP	rack travel mm : 5.00
WITH GOVERNOR	1	SET IDLE AUXILIARY SPRING
IDLE STAGE		Rated speed rpm : 450 rack travel mm : 3.70 Tolerance mm : +- 0.10
Rack travel in mm Tolerance mm		Load pick-up
Oterance min	1 - 0.25	Rated speed rpm : 250
FULL LOAD DELIVERY	AT FULL LOAD STOP	CRT mm min. : > 10.20
Rated speed rpm	: 1850	Rated speed rpm : 1000
Ref. pressure ALDA / ADA hPa	: 1100	CRT mm max. : 1.45
Del. quantity cm3/1000 strokes Folerance	+	rack travel mm : 5.00 Rated speed rpm : 375
cm3/1000 strokes Check tolerance	+	
Spreed	: +- 1.5	TORQUE CONTROL
Tolerance cm3/1000 strokes Check tolerance	: 2.5	Rated speed rpm : 1850 rack travel mm : 12.30
cm3/1000s.	: 3.0	Tolerance mm : + 0.05
RATED SPEED		Rated speed rpm : 1000 rack travel mm : 12.30 Tolerance mm : + 0.10
control lever position degree	: 50.0	ADJUSTMENT TEST ADA/ALDA
rack travel mm	: 5.60 : 2200	SETTING
Rated speed rom		
	+	Rated speed rpm : 1000
rack travel mm Tolerance mm	: 0.50 : + 0.50 : 2400	Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa : 940 rack travel mm : -0.10

		t
Rated speed rpm	: 1000	Del. quantity
Ref. pressure		+ cm3/1000 strokes : 7.8
ALDA / ADA hPa	900	theck tolerance
rack travel mm Tolerance mm	: -0.40 : +- 0.10	cm3/1000s. : + 2.3 Spreed
(Otel dilee likii	0.10	Check tolerance
Rated speed rpm	: 1000	- cm3/1000s. : 1.5
Ref. pressure ALDA / ADA hPa	: 750	†
rack travel mm	-1.50	
Tolerance mm	: +- 0.20	+
		†
		+ Grad :> 47.00
FUEL DELIVERY CHA	ARACTERISTICS	→ Grad : < 44.50
Def		+
Ref. pressure ALDA / ADA hPa	: 1100	SETTING PNEUMATIC FAST IDLE (ELA)
Rated speed rpm		+ SETTENO TREGIATES TROT IDEE CEERS
Del. quantity	. 70.0	+
cm3/1000 strokes Tolerance	: 39.2	+ control lever + position degree : 14.0
cm3/1000 strokes	: +- 1.0	tolerance degree : +- 2.0
Check tolerance		+
cm3/1000s. Spreed	: +- 2.0	Rated speed rpm : 425
Tolerance		Rack travel in mm: 7.30
cm3/1000 strokes	: 2.5	Tolerance mm : + 0.80
Check tolerance cm3/1000s.	: 3.0	+ Del. quantity + cm3/1000 strokes : 16.0
CMS/ TUDUS.	: 3.0	Tolerance
		+ cm3/1000 strokes : + 3.5
UZCU ZNI C		- + Check tolerance + cm3/1000s. : +- 4.5
HIGH IDLE		+ cm3/1000s. : +- 4.5 + Vacuum hPa : 400.0
Ref. pressure		+
ALDA / ADA hPa	: 1100	CETTAIC/TENTIAIC ELECTRONIZA TRUE
		+ SETTING/TESTING ELECTRONIC IDLE - + REGULATION (ELR)
STARTING FUEL DEL	.IVERY	
Rated speed rpm	: 100	t control lever
rack travel mm		position degree : 14.0
Del. quantity		tolerance degree : +- 2.0
cm3/1000 strokes Tolerance	: 59.0	1
cm3/1000 strokes	: +- 4.0	T control lever
Check tolerance		position degree : 50.0
cm3/1000s.	: +- 5.0	ADJUSTMENT
Spreed Tolerance		T AUJUSTIFICIAL
cm3/1000 strokes	: 6.0	control lever
Check tolerance	. 40	position degree : 50.0
cm3/1000s.	: 6.0	Ī
		TESTING PNEUMATIC SHUTOFF DEVICE
LOW IDLE		- † Rated speed rpm : 375
		• · · · · · · · · · · · · · · · · · · ·

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : 180 4113

Combination No. : 0 400 074 885

Injection pump

Pump designation : PES4M55C32ORS167 EP type number : 0 410 054 960

Governor

Governer design. : RSF375/2000M56-14 Governer no. : 0 420 021 271

Cust. part No. :

Customer-spec. information

Customer : DPICO Motor : OM601-2.3L

Power KW : 58.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.05
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 15.50
Tolerance : + 0.20
Check

Check

tolerance °NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 38.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : + 1.5

Spreed Tolerance

Check tolerance cm3/1000s. : 3.0	+ Rated speed rpm : 1000
	4
Rated speed rpm : 375	+ CRT mm max. : 1.45
Rack travel in mm: 5.20	
Tolerance mm : +- 0.10 Del. quantity	† LOW IDLE
cm3/1000 strokes : 6.5	Ţ
Tolerance	control lever
cm3/1000 strokes : +- 0.5 Spreed	<pre>position degree : 14.0 tolerance degree : + 2.0</pre>
Tolerance	+
cm3/1000 strokes : 1.0	+ Setting point w/out bumper spring + Rated speed rpm : 375
	+ rack travel mm : 5.20
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	SET IDLE AUXILIARY SPRING
	Rated speed rpm : 450
IDLE STAGE	rack travel mm : 3.90 Tolerance mm : + 0.10
	+ Toterance nun : +- U.10
Rack travel in mm: 6.25	+ Load pick-up
Tolerance mm : +- 0.25	Rated speed rpm : 250
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : 11.50
Rated speed rpm : 1000	Rated speed rpm : 1000
Ref. pressure	+
ALDA / ADA hPa : 1100 Del. quantity	+ CRT mm max. : 1.45
cm3/1000 strokes : 38.5	Track travel mm : 5.20
Tolerance	Rated speed rpm : 375
cm3/1000 strokes : +- 0.5 Check tolerance	1
cm3/1000s. : +- 1.5	+
Spreed Telephone	TORQUE CONTROL
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 1000
Check tolerance	+ rack travel mm : 12.15
cm3/1000s. : 3.0	† Tolerance mm : +- 0.05
	Rated speed rpm : 1800
RATED SPEED	+ rack travel mm : 11.90
	Tolerance mm : +- 0.10
control lever	Rated speed rpm : 2000
position degree : 50.0	rack travel mm : 11.80
rack travel mm : 8.90	Tolerance mm : + 0.10
Rated speed rpm : 2200	+
	ADJUSTMENT TEST ADA/ALDA
rack travel mm : 0.50 Tolerance mm : +- 0.50	+ SETTING
Rated speed rpm : 2550	+
•	Rated speed rpm : 1000
SET IDLE CONTROL LEVER POSITION	+ Ref. pressure + ALDA / ADA hPa : 940
SEL THE COMINAL PEACE LASTITUM	T ALVA / AVA HEQ : 740

rack travel mm Tolerance mm		STARTING FUEL DELIVERY
MEASUREMENT		+
Rated speed rpm Ref. pressure ALDA / ADA hPa	: 900	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : +- 1.50 Del. quantity
rack travel mm Tolerance mm	: -0.40 : +- 0.10	- cm3/1000 strokes : 59.0 - Tolerance - cm3/1000 strokes : +- 4.0
Rated speed rpm Ref. pressure ALDA / ADA hPa		Check tolerance cm3/1000s. : +- 5.0 Spreed
rack travel mm Tolerance mm	: -1.50 : +- 0.20	Tolerance cm3/1000 strokes : 6.0 check tolerance
FUEL DEL TUEDY CILL	ADAOTEDICITO	+ cm3/1000s. : 6.0
FUEL DELIVERY CHA	ARACTERISTICS	‡
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity	: 1100 : 1800	LOW IDLE Del. quantity
cm3/1000 strokes Tolerance	: 40.8	cm3/1000 strokes : 7.8 Check tolerance
cm3/1000 strokes Check tolerance		+ cm3/1000s. : + 2.3 + Spreed
cm3/1000S. Spreed Tolerance	: +- 1.8	Check tolerance cm3/1000s. : 1.5
cm3/1000 strokes Check tolerance	: 2.5	
cm3/1000s.	: 3.0	‡
Ref. pressure ALDA / ADA hPa	: 1100	Grad : > 47.00
Rated speed rpm Spreed		Grad : < 44.50
Del. quantity cm3/1000 strokes Tolerance	: 41.0	SETTING PNEUMATIC FAST IDLE (ELA)
cm3/1000 strokes Check tolerance		t control lever
cm3/1000S. Spreed Tolerance	: +- 2.0	position degree : 14.0 tolerance degree : +- 2.0
cm3/1000 strokes Check tolerance	: 2.5	Rated speed rpm : 425
cm3/1000s.	: 3.0	Rack travel in mm : 7.30 Tolerance mm : +- 0.80 Del. quantity
HIGH IDLE		cm3/1000 strokes : 16.0 Tolerance
Ref. pressure		cm3/1000 strokes : +- 3.5 Check tolerance
ALDA / ADA hPa	: 1100	- cm3/1000s. : +- 4.5 Vacuum hPa : 400.0

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : + 2.0

control lever

position degree : 50.0

ADJUSTMENT

control lever

position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 375

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 074 886

Injection pump

Pump designation : PES4M55C32ORS167 EP type number : 0 410 054 960

Governor

Governer design. : RSF375/2000M55-7 Governer no. : 0 420 021 268

Cust. part No. :

Customer-spec. information Customer : DPICO

: 0M601-2.3L Motor Power KW : 58.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C, 40 Tolerance °C : +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

: 1 688 901 111 assembly

Opening pressure

: 148.5 bar Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

2.0 x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 2.05 : +- 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm: 21.00 Tolerance mm : +- 1.00

: 1-3-4-2 Firing order

: 0-90-180~270 Phasing

Start of delivery blocking

*NW after s.o.d. : 15.50 Tolerance : +- 0.20 Check

tolerance °NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.15 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 38.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 2.5

: +- 1.5

Check tolerance cm3/1000s. : 3.0	CRT mm max. : 1.45
Rated speed rpm : 375 Del. quantity + cm3/1000 strokes : 6.5	LOW IDLE
Tolerance cm3/1000 strokes : + 0.5	control lever
Spreed Tolerance	position degree : 14.0 tolerance degree : +- 2.0
cm3/1000 strokes : 1.0	SET IDLE AUXILIARY SPRING
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 450 rack travel mm : 3.90 Tolerance mm : + 0.10
IDLE STAGE	Load pick-up
Rack travel in mm: 6.25	Rated speed rpm : 250
Tolerance mm : + 0.25	CRT mm min. : 11.50
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1000
Rated speed rpm : 1000	CRT mm max. : 1.45
Ref. pressure ALDA / ADA hPa : - + Del. quantity +	rack travel mm : 5.20 Rated speed rpm : 375
cm3/1000 strokes : 38.5	
cm3/1000 strokes : +- 0.5 +- Check tolerance +-	TORQUE CONTROL
cm3/1000s. : + 1.5 Spreed Tolerance	Rated speed rpm : 1000 rack travel mm : 12.15 Tolerance mm : + 0.05
cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 1800
cm3/1000s. : 3.0	rack travel mm : 11.90 Tolerance mm : +- 0.10
RATED SPEED	Rated speed rpm : 2000 rack travel mm : 11.80 Tolerance mm : +- 0.10
control lever position degree : 50.0	
rack travel mm : 8.90 Rated speed rpm : 2200	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 2550	Ref. pressure ALDA / ADA hPa : - Rated speed rpm : 1800 Del. quantity
SET IDLE CONTROL LEVER POSITION	cm3/1000 strokes : 40.8 Tolerance cm3/1000 strokes : +- 0.8
Rated speed rpm : 1000	Check tolerance cm3/1000s. : +- 1.8

Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	-	Check tolerance cm3/1000s. : 1.5
Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity	: 2000	- Grad :> 47.00 - Grad :< 44.50
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	4	SETTING PNEUMATIC FAST IDLE (ELA)
cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 2.5	control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 425 Rack travel in mm : 7.30 Tolerance mm : + 0.80
HIGH IDLE Ref. pressure ALDA / ADA hPa	: -	- Del. quantity - cm3/1000 strokes : 16.0 - Tolerance - cm3/1000 strokes : + 3.5 - Check tolerance - cm3/1000s. : + 4.5
STARTING FUEL DEL	.IVERY	- Vacuum hPa : 400.0 -
Rated speed rpm rack travel mm Tolerance mm	: 21.60 	SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: +- 4.0	control lever position degree : 14.0 tolerance degree : +- 2.0
cm3/1000s. Spreed Tolerance cm3/1000 strokes	: +- 5.0	control lever position degree : 50.0
Check tolerance cm3/1000s.	: 6.0	ADJUSTMENT control lever position degree : 50.0
LOW IDLE		TESTING PAISUMATIC SHITOSE DEVICE
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 375 : 5.20 : + 0.10 : 7.8	TESTING PNEUMATIC SHUTOFF DEVICE Rated speed rpm : 375
Check tolerance cm3/1000s. Spreed	: ← 2.3	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 400 074 889

Injection pump

Pump designation : PES4M55C32ORS172 EP type number : 0 410 054 958

Governor

Governer design. : RSF375/2300M75-2 Governer no. : 0 420 021 166

Cust. part No. :

Customer-spec, information Customer : MB-PKW

II taoM-10amo : Motor

Power KW 53.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

: 1 688 901 111 assembly

Opening pressure

: 148.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.75
Tolerance mm : + 0.05 Check

: + 0.10 tolerance mm

Rack travel in mm: 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 17.00 Tolerance : +- 0.20

Check

tolerance °NW : +- 0.30

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 12.35 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 33.5

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance : +- 1.5 cm3/1000s.

Spreed

Tolerance

Obs. I had a second			
Check tolerance cm3/1000s. :	3.0	SET IDLE CONTROL	LEVER POSITION
Rated speed rpm :	375	Rated speed rpm	: 900
Rack travel in mm : Tolerance mm : + Del. quantity	- 6.30 - 0.10	CRT mm max.	: 1.45
cm3/1000 strokes : Tolerance	+	LOW IDLE	
cm3/1000 strokes : + Spreed	- 0.5	control lever	44.0
Tolerance cm3/1000 strokes :	1.0	position degree tolerance degree	
(B) SETTING OF INJECT WITH GOVERNOR	TION PUMP	Setting point w/o Rated speed rpm rack travel mm	
IDLE STAGE		SET IDLE AUXILIAR	RY SPRING
Rack travel in mm : Tolerance mm : +		Rated speed rpm rack travel mm Tolerance mm	
TOTAL TIME		rack travel mm Rated speed rpm	
FULL LOAD DELIVERY AT	FULL LOAD STOP	Tolerance 1/min	
Rated speed rpm : Ref. pressure	+	Load pick-up	
ALDA / ADA hPa : Del. quantity	+	Rated speed rpm	
c/m3/1000 strokes : Tolerance	+	CRT mm min.	
Check tolerance	- 0.5	Rated speed rpm	
cm3/1000s. : + Spreed Tolerance	- 1.5 	CRT mm max. rack travel mm	
cm3/1000 strokes : Check tolerance	2.5	Rated speed rpm	
cm3/1000s. :	3.0		
RATED SPEED		TORQUE CONTROL	
control lever	+	Rated <u>speed</u> rpm rack travel mm Tolerance mm	: 12.35
position degree :	50.0	Rated speed rpm	
	7.90 2500	rack travel mm Tolerance mm	: 12.05
	0.50 - 0.50 2950	Rated speed rpm rack travel mm Tolerance mm	

ADJUSTMENT TEST ADA/ALDA	
	∔ HIGH IDLE
CETTIAIC	T HIGH INCE
SETTING	T as
	+ Ref. pressure
Rated speed rpm : 900	+ ALDA / ADA hPa : 1100
Ref. pressure ALDA / ADA hPa : 950	+
ALDA / ADA hPa : 950	
nnok though him a -0.10	+ STARTING FUEL DELIVERY
rack travel mm : -0.10	T STARTING FUEL DELIVERT
Tolerance mm : + 0.10	†
	+ Rated speed rpm : 100
MEASUREMENT	+ rack travel mm : > 20.10
	+ Del. quantity
Rated speed rpm : 900	- cm3/1000 strokes : 52.0
Ref. pressure	+ Spreed
ALDA / ADA hPa : 900	+ Tolerance
rack travel mm : -0.60	+ cm3/1000 strokes : 6.0
Tolerance mm : + 0.10	+ Check tolerance
TOTAL GRADE TIME	+ cm3/1000s. : 6.0
Dated around some a COO	, O.D
Rated speed rpm : 900	Ť
Ref. pressure	†
ALDA / ADA hPa : 750	+
rack travel mm : -2.00	
Tolerance mm : + 0.20	LOW IDLE
TOTAL CHAIL	LOW INCL
	T
	+ Del. quantity
	+ cm3/1000 strokes : 7.8
FUEL DELIVERY CHARACTERISTICS	+ Check tolerance
	+ Check tolerance + cm3/1000s. : +- 2.3
Def manageme	Spreed
Ref. pressure	
ALDA / ADA hPa : 1100	+ Check tolerance
D-td 1///	+ cm3/1000s. : 1.5
Rated speed rpm : 1400	,
	-
Del. quantity	
Del. quantity cm3/1000 strokes : 33.8	+
Del. quantity cm3/1000 strokes : 33.8 Tolerance	
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : +- 0.8	
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : +- 0.8 Check tolerance	
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : +- 0.8 Check tolerance	
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : +- 0.8 Check tolerance cm3/1000s. : +- 1.8	
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : +- 0.8 Check tolerance cm3/1000s. : +- 1.8 Spreed	Grad : > 49.00
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : +- 0.8 Check tolerance cm3/1000s. : +- 1.8 Spreed Tolerance	
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5	Grad : > 49.00
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	Grad : > 49.00
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5	Grad : > 49.00
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	Grad : > 49.00
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0	Grad : > 49.00
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA)
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree :+ 2.0
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : +- 2.0 Rated speed rpm : 425
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree :+- 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : +- 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : +- 0.80
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : +- 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : +- 0.80
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : +- 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : +- 0.80 Del. quantity
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : +- 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : +- 0.80 Del. quantity cm3/1000 strokes : 17.0
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : +- 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : +- 0.80 Del. quantity cm3/1000 strokes : 17.0 Tolerance
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : + 0.80 Del. quantity cm3/1000 strokes : 17.0 Tolerance cm3/1000 strokes : + 3.5
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000strokes : 2.5 Check tolerance cm3/1000 strokes : 2.5 Check tolerance	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : + 0.80 Del. quantity cm3/1000 strokes : 17.0 Tolerance cm3/1000 strokes : + 3.5 Check tolerance
Del. quantity cm3/1000 strokes : 33.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed Del. quantity cm3/1000 strokes : 35.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5	Grad :> 49.00 Grad :< 46.50 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 425 Rack travel in mm : 8.90 Tolerance mm : + 0.80 Del. quantity cm3/1000 strokes : 17.0 Tolerance cm3/1000 strokes : + 3.5

Vacuum hPa : 400.0

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : +- 2.0

control lever

position degree : 50.0

ADJUSTMENT

control lever

position degree : 50.0

Rated speed rpm : 900 rack travel mm : -1.70 Tolerance mm : + 0.15

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 375

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.03.96 Test oil : ISO 4113

Combination No. : 0 400 075 920

Injection pump

Pump designation : PES5M55C32ORS189 EP type number : 0 410 055 953

Governor

Governer design. : RSF385/2000M83 Governer no. : 0 420 021 284

Cust. part No. :

Customer-spec. information

Customer : DPICO

Motor : 0M 602 2,9ltr

Power KW : 70.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

Start of delivery blocking

*NW after s.o.d. : 15.50 Tolerance : +- 0.20 Check

uneck

tolerance °NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.15
Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 38.0

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 1.5

Tolerance

Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000
Rated speed rpm : 385	CRT mm max. : 1.45
Rack travel in mm: 5.90 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 9.5 Tolerance cm3/1000 strokes : +- 0.5 Spreed	control lever position degree : 12.5 tolerance degree : + 2.0
Tolerance cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 385 rack travel mm : 5.90
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 500 rack travel mm : 4.00 Tolerance mm : + 0.10
Rack travel in mm: 6.25 Tolerance mm: +- 0.15	Load pick-up
Total and the second	Rated speed rpm : 250
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : 13.00
Rated speed rpm : 1000	Rated speed rpm : 1000
Ref. pressure ALDA / ADA hPa : 1100	CRT mm max. : 1.45
Del. quantity cm3/1000 strokes : 38.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance	rack travel mm : 5.90 Rated speed rpm : 385
cm3/1000s. : + 1.5 Spreed	TORQUE CONTROL
Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000 rack travel mm : 12.15 Tolerance mm : + 0.05
RATED SPEED	Rated speed rpm : 2000 rack travel mm : 12.15 Tolerance mm : + 0.10
control lever position degree : 50.0	ADJUSTMENT TEST ADA/ALDA
rack travel mm : 7.60 Rated speed rpm : 2250	SETTING
rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2550	+ Rated speed rpm : 1000 + Ref. pressure + ALDA / ADA hPa : 940 + rack travel mm : -0.10 + Tolerance mm : + 0.10
SET IDLE CONTROL LEVER POSITION	+ MEASUREMENT

Rated speed rpm	: 1000	<u> </u>
Ref. pressure	. 1000	LOW IDLE
ALDA / ADA hPa	: 900	+
rack travel mm	: -0.40	+ Rated speed rpm : 385
Tolerance mm	: 0.10	rack travel mm : 5.90
	4===	Tolerance mm : + 0.10
Rated speed rpm	: 1000	+ Del. quantity
Ref. pressure	: 750	+ cm3/1000 strokes : 9.5
ALDA / ADA hPa rack travel mm	: -1.50	+ Check tolerance + cm3/1000s. : +- 2.3
Tolerance mm		+ Spreed
TOTAL GITTE TIRM		+ Check tolerance
		+ cm3/1000s. : 1.5
FUEL DELIVERY CHA	ARACTERISTICS	+ +
b		+
Ref. pressure ALDA / ADA hPa	: 1100	Ĭ
Rated speed rpm	2000	Figure 1
Del. quantity	. 2000	+1.00
cm3/1000 strokes	: 41.5	+ Grad : < 44.50
Tolerance		+
cm3/1000 strokes	: +- 1.0	OPTITALO DALFILIMATE CAST TALE (FLAT
Check tolerance	. + 20	+ SETTING PNEUMATIC FAST IDLE (ELA)
cm3/1000s. Spreed	: + 2.0	I
spreed Tolerance		t control lever
cm3/1000 strokes	: 2.5	position degree : 12.5
Check tolerance		+ tolerance degree : + 2.0
cm3/1000S.	: 3.0	+
		+ Rated speed rpm : 400
-		+ Rack travel in mm: 8.90
HIGH IDLE		+ Tolerance mm : + 0.80
		+ Del. quantity
Ref. pressure		+ cm3/1000 strokes : 22.5
ALDA / ADA hPa	: 1100	+ Tolerance
		+ cm3/1000 strokes : + 3.5
CTADITAIC CHEL SEL	TI/EDV	+ Check tolerance
STARTING FUEL DEL	TACK I	+ cm3/1000s. : +- 4.5 + Vacuum hPa : 400.0
Rated speed rpm	: 100	T vacuum mra . 400.0
rack travel mm		
Tolerance mm		↓ SETTING/TESTING ELECTRONIC IDLE
Del. quantity		REGULATION (ELR)
cm3/1000 strokes	: 60.3	+
Tolerance		†
cm3/1000 strokes	: +- 4.U	control lever
Check tolerance cm3/1000s.	: +- 5.0	<pre>position degree : 12.5 tolerance degree : +- 2.0</pre>
Spreed		T coterance degree . The 2.0
Tolerance		1
cm3/1000 strokes	: 6.0	control lever
Check tolerance		position degree : 50.0
cm3/1000s.	: 6.0	1
		+ ADJUSTMENT
		- control lever
		position degree : 50.0
		· · · · · · · · · · · · · · · · · · ·

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 385

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 400 075 921

Injection pump

Pump designation : PES5M55C32ORS189 EP type number : 0 410 055 953

Governor

Governer design. : RSF385/2000M81 Governer no. : 0 420 021 282

Cust. part No. :

Customer-spec. information

Customer : DPICO

Motor : 0M 602 2,9ltr

Power KW : 70.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : +- 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

Start of delivery blocking

°NW after s.o.d.: 15.50 Tolerance: + 0.20

Check

tolerance °NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 38.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 1.5

Spreed

Tolerance

Check tolerance cm3/1000s.	: 3.0	Rated speed rpm	: 1000
Rated speed rpm	: 385	CRT mm max.	: 1.45
Rack travel in mm Tolerance mm Del. quantity	: + 0.10	LOW IDLE	
cm3/1000 strokes Tolerance cm3/1000 strokes Spreed		control lever position degree tolerance degree	: 14.0 : +- 2.0
Tolerance cm3/1000 strokes	: 1.0	+ Setting point w/o + Rated speed rpm + rack travel mm	
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	SET IDLE AUXILIA	
IDLE STAGE		Rated speed rpm rack travel mm Tolerance mm	: 4.00
Rack travel in mm Tolerance mm		Load pick-up	
		Rated speed rpm	: 250
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	CRT mm min.	: 12.00
Rated speed rpm Ref. pressure	: 1000	Rated speed rpm	: 1000
ALDA / ADA hPa	: -	CRT mm max.	: 1.45
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	-	rack travel mm Rated speed rpm	
Check tolerance cm3/1000s.	: +- 1.5		
Spreed Tolerance	-	TORQUE CONTROL	
cm3/1000 strokes Check tolerance cm3/1000s.	: 2.5 : 3.0	Rated speed rpm rack travel mm Tolerance mm	: 12.15
RATED SPEED	-	Rated speed rpm rack travel mm Tolerance mm	: 12.15
control lever position degree	: 50.0	 	
rack travel mm Rated speed rpm	: 7.60 : 2250	FUEL DELIVERY CHA	RACTERISTICS
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : +- 0.50 : 2550	Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes	
SET IDLE CONTROL L	EVER POSITION -	Tolerance cm3/1000 strokes	: +- 1.0

Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.		control lever position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 400 Rack travel in mm : 8.90 Tolerance mm : + 0.80
		→ Del. quantity
HIGH IDLE		+ cm3/1000 strokes : 22.5 + Tolerance
Ref. pressure ALDA / ADA hPa	: -	- cm3/1000 strokes : +- 3.5 - Check tolerance - cm3/1000s. : +- 4.5
STARTING FUEL DEL	.IVERY	+ Vacuum hPa : 400.0 +
Rated speed rpm rack travel mm Tolerance mm	: 100 : 21.60 : + 1.50	SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance		control lever position degree : 14.0 tolerance degree : +- 2.0
cm3/1000S. Spreed Tolerance		control lever position degree : 50.0
cm3/1000 strokes Check tolerance		ADJUSTMENT
cm3/1000s.	. 0.0	control lever position degree : 50.0
LOW IDLE		
Rated speed rpm rack travel mm Del. quantity	: 385 : 5.90	TESTING PNEUMATIC SHUTOFF DEVICE Rated speed rpm : 385
cm3/1000 strokes Check tolerance	: 9.5	<u> </u>
cm3/1000S. Spreed Check tolerance	: +- 2.3	End of test specification sheet
cm3/1000s.	: 1.5	
Grad	: > 47.00	
Grad	: < 44.50	Ī
SETTING PNEUMATIC	FAST IDLE (ELA)	<u>‡</u>

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 : ISO 4113 Test oil

Combination No. : 0 400 075 923

Injection pump

Pump designation : PES5M55C32ORS168 EP type number : 0 410 055 978

Governor

Governer design. : RSF350/2000M55-8 Governer no. : 0 420 021 269

Cust. part No. :

Customer-spec. information Customer : DPICO

Motor : 0M602-2.9L Power KW : 69.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

: 1 688 901 111 assembly

Opening pressure

: 148.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 600 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05 : + 0.05 Tolerance mm Check

: **←** 0.10 tolerance mm

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

Start of delivery blocking

*NW after s.o.d. : 15.50 Tolerance : +- 0.20 Check

tolerance °NW : **←** 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.15 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 38.5

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance

: +- 1.5 cm3/1000s.

Spreed Tolerance

Check tolerance cm3/1000s.	: 3.0	+ Rated speed rpm : 1000
Rated speed rpm	: 350	+ CRT mm max. : 1.45
Rack travel in mm Tolerance mm Del. quantity	: 5.30 : +- 0.10	LOW IDLE
cm3/1000 strokes	: 6.5	+
Tolerance cm3/1000 strokes Spreed	: +- 0.5	control lever position degree : 14.0 tolerance degree : +- 2.0
Tolerance cm3/1000 strokes	: 1.0	Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 5.30
(B) SETTING OF INJ	ECTION PUMP	+ rack travel mm : 3.30
WITH GOVERNOR		SET IDLE AUXILIARY SPRING
IDLE STAGE		Rated speed rpm : 450 rack travel mm : 4.10 Tolerance mm : + 0.10
Rack travel in mm Tolerance mm		Load pick-up
roter arroc timir		Rated speed rpm : 250
FULL LOAD DELIVERY	AT FULL LOAD STOP	CRT mm min. : 10.50
Rated speed rpm Ref. pressure	: 1000	Rated speed rpm : 1000
ALDA / ADA hPa	•	+ CRT mm max. : 1.45
el. quantity m3/1000 strokes olerance	: 38.5	rack travel mm : 5.30 Rated speed rpm : 350
m3/1000 strokes heck tolerance	: +- 0.5	Traced opeca (piii : 050
m3/1000s.	: + 1.5	TOPOUT CONTROL
Spreed Tolerance		TORQUE CONTROL
cm3/1000 strokes	: 2.5	+ Rated speed rpm : 1000
Check tolerance cm3/1000s.	: 3.0	rack travel mm : 12.15 Tolerance mm : +- 0.05
		+ Rated speed rpm : 1800
RATED SPEED		+ rack travel mm : 12.00
		Tolerance mm : +- 0.10
control lever		Rated speed rpm : 2000
position degree	: 50.0	rack travel mm : 11.80
rack travel mm Rated speed rpm	: 8.90 : 2200	Tolerance mm : +- 0.10
, ,		+
rack travel mm Folerance mm	: 0.50 : +- 0.50 : 2550	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm SET IDLE CONTROL LI		Ref. pressure ALDA / ADA hPa : - Rated speed rpm : 1800

Del. quantity +	Check tolerance
cm3/1000 strokes : 40.8	cm3/1000s. : +- 2.3 Spreed
cm3/1000 strokes : +- 0.8 +	Check tolerance
Check tolerance + 1.8 +	cm3/1000s. : 1.5
Spreed Tolerance	
cm3/1000 strokes : 2.5	
Check tolerance + cm3/1000s. : 3.0	Grad :> 47.00
+	
Ref. pressure + ALDA / ADA hPa : - +	Grad : < 44.50
Rated speed rpm : 2000 +	SETTING PNEUMATIC FAST IDLE (ELA)
Del. quantity	SETTING THEOMATIC TAST IDEE CEEAS
cm3/1000 strokes : 41.0 +	control lever
cm3/1000 strokes : + 1.0 +	position degree : 14.0
Check tolerance cm3/1000s. : +- 2.0	tolerance degree : +- 2.0
Spreed +	Rated speed rpm : 400
cm3/1000 strokes : 2.5	Rack travel in mm : 6.10
Check tolerance tm3/1000s. : 3.0	Tolerance mm : + 0.80 Del. quantity
1	cm3/1000 strokes : 11.0 Tolerance
	cm3/1000 strokes : +- 3.5
HIGH IDLE	Check tolerance cm3/1000s. : +- 4.5
Ref. pressure	Vacuum hPa : 400.0
ALDA / ADA hPa : - +	
STARTING FUEL DELIVERY +	SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)
+	
Rated speed rpm : 100 + rack travel mm : 21.60 +	control lever
Tolerance mm : + 1.50 +	position degree : 14.0
Del. quantity + cm3/1000 strokes : 59.0 +	tolerance degree : +- 2.0
Tolerance	
cm3/1000 strokes : + 4.0 + Check tolerance	control lever position degree : 50.0
cm3/1000s. : + 5.0	position degree : 50.0
Spreed	ADJUSTMENT
Tolerance + cm3/1000 strokes : 6.0	control lever
Check tolerance	position degree : 50.0
cm3/1000s. : 6.0	
+	TESTING PNEUMATIC SHUTOFF DEVICE
	IFPITING EMERINATE SURTOLL DEATER
LOW IDLE	Rated speed rpm : 350
Del. quantity	
cm3/1000 strokes : 7.8 +	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.03.96 Test oil : ISO 4113

Combination No. : 0 401 846 859

Injection pump

Pump designation : PE6P12OA32ORS3196Q

EP type number : 0 411 826 776

Governor

Governer design. : RQV200/1100PA729-1 Governer no. : 0 421 813 470

Cust. part No. : 394505

Customer—spec. information Customer : SCANIA Motor : DS9 08

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm) : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

tolerance mm

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05
Check

Rack travel in mm : 10.50
Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: + 0.10

Tolerance : \leftarrow 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 10.05
Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 125.0 Tolerance	guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
cm3/1000 strokes : +- 1.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000S. : +- 4.0	Rated speed rpm : 1315
Spreed Tolerance cm3/1000 strokes : 5.0	Rack travel in mm: 9.00 Tolerance mm: + 1.30
Check tolerance cm3/1000s. : 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 225	+ Rated speed rpm : 700 + Aneroid pressure
Rack travel in mm : 5.20 Tolerance mm : +- 0.30	+ hPa : - + Del. quantity + cm3/1000 strokes : 125.0
Del. quantity cm3/1000 strokes : 24.0	+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes : +- 3.0	Check tolerance + cm3/1000s. : +- 4.0
Check tolerance cm3/1000s. : +- 6.0	Spreed Tolerance
Spreed Tolerance	+ cm3/1000 strokes : 5.0 + Check tolerance
cm3/1000 strokes : 3.0 Check tolerance	+ cm3/1000s. : 8.0
cm3/1000s. : 6.0	CONTROL LEVER
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 59.0
GUIDE SLEEVE TRAVEL	tolerance degree : + 4.0
	+ control lever
Rated speed rpm : 225 guide sleeve	position degree : 115.0 tolerance degree : +- 4.0
travel mm : 0.65 Tolerance mm : +- 0.20	RATED SPEED
Rated speed rpm : 1155 guide sleeve	rack travel mm : 9.00 Rated speed rpm : 1145
travel mm : 8.50 Tolerance mm : + 0.15	Tolerance 1/min : + 5
Rated speed rpm : 719 guide sleeve	+ rack travel mm : 4.00 + Rated speed rpm : 1250 + Tolerance 1/min : +- 15
travel mm : 5.54 Tolerance mm : + 0.25	rack travel mm : 0.50
Rated speed rpm : 430	Tolerance mm : +- 0.50 Rated speed rpm : 1350
guide sleeve	†
travel mm : 3.90	
Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 1440	+

: 63.0
: 63.0 : ← 4.0
0.0
: 9.0 : + 4.0
: 225
: 225 : 5.20 : +- 0.10
: 125
: > 6.20
: 330
: 700
: 10.05 : +- 0.05
: +- 0.05
: 1100
: 10.05 : +- 0.05
RACTERISTICS
: – : 1100
. 1100
: 140.0
: +- 4.0
: +- 6.0
: 9.00
: 1145
• + 5
: +- 5

Rated speed rpm	:	100
rack travel mm	:	20.50
Tolerance mm	: +-	- 0.50
Del. quantity		
cm3/1000 strokes	:	355.0
Tolerance		
cm3/1000 strokes	: +-	- 20.0
Check tolerance		
cm3/1000s.	: +-	- 24.0

LOW IDLE

Rated speed rpm	:		225 5.20
Tolerance mm	:	+-	0.30
Del. quantity cm3/1000 strokes	:		24.0
Tolerance cm3/1000 strokes	:	+-	3.0
Check tolerance cm3/1000s.	:	+	6.0
Spreed	-		
Tolerance cm3/1000 strokes Check tolerance	:		3.0
cm3/1000s.	:		6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.03.96 Test oil : ISO 4113

Combination No. : 0 401 856 700

Injection pump

Pump designation : PE6P110A721RS3101 EP type number : 0 411 816 725

Governor

Governer design. : RQ300/1200PA412 Governer no. : 0 421 801 172

Cust. part No. :

Customer-spec. information Customer : SNF

Motor : WD615.67 Power KW : 206.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 : +- 0.35

Tolerance Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 12.05 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 163.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0

-	/
Spreed	control lever
Tolerance	position degree : 40.0
	position degree . 40.0
cm3/1000 strokes : 4.0 -	tolerance degree : + 4.0
	†
Check tolerance	RATED SPEED
cm3/1000s. : 7.5	1
	rack travel mm : 11.00
Rated speed rpm : 300	
Rated speed rpm : 300	Rated speed rpm : 1253
	Tolerance 1/min : +- 8
Rack travel in mm : 6.00	•
Tolerance mm : + 0.20	rack travel mm : 4.00
Del. quantity	Rated speed rpm : 1340
cm3/1000 strokes : 15.0	Tolerance 1/min : + 15
Tolerance -	10 ceranice manny 1 1 15
cm3/1000 strokes : +- 3.0	rack travel mm : 0.75
Check tolerance	Tolerance mm : +- 0.75
cm3/1000s. : +- 5.5	Rated speed rpm : 1450
Spreed	<u>,</u>
Tolerance	
cm3/1000 strokes : 4.5	
	IOU TOUT
Check tolerance	LOW IDLE
cm3/1000%. : 7.5	-
-	-
-	control lever
(B) SETTING OF INJECTION PUMP	- position degree : 14.0
WITH GOVERNOR	tolerance degree : + 4.0
WITH GOVERNOR	toterance degree . The 4.0
7	
1	- Testing:
	-
GUIDE SLEEVE POSITION	- Rated speed rpm : 300
GOIDE SEELVE LOSTITON	r kated speed roll : 500
GOIDE SEELVE POSITION	rack travel mm : 6.00
-	rack travel mm : 6.00
Rated speed rpm : 600	rack travel mm : 6.00 - Tolerance mm : +- 0.10
Rated speed rpm : 600	rack travel mm : 6.00 - Tolerance mm : +- 0.10
Rated speed rpm : 600 - Rack travel in mm : 16.00 - Rack t	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00
Rated speed rpm : 600	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425
Rated speed rpm : 600 - Rack travel in mm : 16.00 - Rack t	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00
Rated speed rpm : 600 - Rack travel in mm : 16.00 - Rack t	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20
Rated speed rpm : 600 - Rack travel in mm : 16.00 - Rack t	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. : > 7.50
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. : > 7.50 TORQUE CONTROL
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. : > 7.50
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. : > 7.50 TORQUE CONTROL Dimension a mm : 0.35
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. : > 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200 rack travel mm : 12.05
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. : > 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200 rack travel mm : 12.05 Tolerance mm : +- 0.05
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200 rack travel mm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200 rack travel mm : 12.05 Tolerance mm : +- 0.05
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200 rack travel mm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700 rack travel mm : 12.45
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 1200 rack travel mm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700 rack travel mm : 12.45 Tolerance mm : +- 0.05
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700 rack travel mm : 12.45 Tolerance mm : +- 0.05 Rated speed rpm : 1075
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700 rack travel mm : 12.45 Tolerance mm : +- 0.05 Rated speed rpm : 1075 rack travel mm : 12.30
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5	rack travel mm : 6.00 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 425 Tolerance 1/min : +- 20 Rated speed rpm : 100 CRT mm min. :> 7.50 TORQUE CONTROL Dimension a mm : 0.35 Rated speed rpm : 12.05 Tolerance mm : +- 0.05 Rated speed rpm : 700 rack travel mm : 12.45 Tolerance mm : +- 0.05 Rated speed rpm : 1075
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance	rack travel mm
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5	rack travel mm
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 163.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5	rack travel mm

ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 12.45 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 10.20 : + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Toleränce mm	: 420 : 11.55 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: 330 : 10.35
roter arice and	: ← 0.15
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure	RACTERISTICS : 700 : 700

Rack travel in mm : 11.00
Rated speed rpm : 1253
Tolerance 1/min : + 8

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 220.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 300 6.00 rack travel mm : + 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +- 5.5 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance 7.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12,03,96 Edition Test oil : ISO 4113

Combination No. : 0 402 046 874

Injection pump

Pump designation : PES6P120A720RS3360 EP type number : 0 412 026 785

Governor

Governer design. : RQV300...1100PA1254K

Governer no. : 0 421 815 485

Cust. part No. :

Customer-spec. information

Customer : IVECO-FRANCE Motor : 8360.46.4107

Power KW : 198.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 034

Inlet press. bar : 2.5

Overflow quantity

min. L/h : 105 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.15 Tolerance mm : +- 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 14.00 Tolerance mm : + 0.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance °NW : +- 0.50

Start of delivery mark

Check

tolerance *NW : +- 0.40

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1100

	+ guide sleeve
Rack travel in mm : 14.05	† travel mm : 13.50
Tolerance mm : +- 0.05	→ Tolerance mm : ← 0.50
	1
Del. quantity	
cm3/1000 strokes : 184.0	↓ GUIDE SLEEVE POSITION
(m) 1000 3610AC3 . 104.6	T GOIDE SEEENE CONTINU
Tolerance	Rated speed rpm : 1325
cm3/1000 strokes : +- 1.0	T Mateu speed I pill . 1323
CIIDY 1000 STROKES . F- 1.0	Rack travel in mm: 10.00
Charle to Lainness	
Check tolerance	Tolerance mm : + 2.70
cm3/1000s. : +- 4.0	†
Spreed	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	†
cm3/1000 strokes : 5.0	+ Rated speed rpm : 1100
	+ Aneroid pressure
Check tolerance	+ hPa : 1200
cm3/1000s. : 9.0	+ Del. quantity
	+ cm3/1000 strokes : 184.0
Rated speed rpm : 300	+ Tolerance
	+ cm3/1000 strokes : +- 1.0
Rack travel in mm : 7.80	Check tolerance
Tolerance mm : +- 0.20	+ cm3/1000s. : + 4.0
Del. quantity	Spreed
cm3/1000 strokes : 25.0	+ Tolerance
Tolerance	cm3/1000 strokes : 5.0
cm3/1000 strokes : +- 3.0	Check tolerance
Check tolerance	+ cm3/1000s. : 9.0
cm3/1000s. : +- 6.0	†
Spreed	†
Tolerance	
cm3/1000 strokes : 8.0	+ CONTROL LEVER
Check tolerance	+
cm3/1000s. : 12.0	+ control lever
	+ position degree : 116.0
	+ tolerance degree : ← 4.0
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	+ RATED SPEED
	+
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1145
	+ Tolerance 1/min : + 5
Rated speed rpm : 300	1
guide steeve	rack travel mm : 4.00
travel mm : 2.68	+ Rated speed rpm : 1260
Tolerance mm : + 0.20	+ Tolerance 1/min : +- 15
TOTAL GIRCA HIN . THE D.CO	T roterance minim
Rated speed rpm : 1156	rack travel mm : 0.50
transparent after a second control of the control o	
guide sleeve	+ Tolerance mm : + 0.50
travel mm : 9.00	+ Rated speed rpm : 1400
Tolerance mm : + 0.15	†
	†
Rated speed rpm : 380	
guide sleeve	+ LOW IDLE
travel mm : 3.51	+
Tolerance mm : +- 0.25	+
	+ control lever
Rated speed rpm : 1450	position degree : 61.0
Company alternative to the second of the sec	+ tolerance degree : +- 4.0
	A CALLER MINE MEDITED TO THE PROPERTY OF THE P

Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 6.60 : + 0.10
Rated speed rpm	: 225
CRT mm min.	: > 8.10
Rated speed rpm	: 330
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 14.05 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 850 : 14.20 : + 0.15
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.55 : + 0.15
Rated speed rpm rack travel mm Tolerance mm	: 500 : 13.30 : + 0.20
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 850 : 1200 : 14.20 : + 0.15
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 850 : 10.80 : + 0.20
Rated speed rpm	: 850
Pressure hPa rack travel mm Tolerance mm	: 640 : 13.10 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 380 : 11.60 : + 0.05

START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 200 : < 220
Check speed 1/min Check	: > 180
speed 1/min	: < 240
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 1200 : 700
Del. quantity cm3/1000 strokes Tolerance	: 182.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure hPa Rated speed rpm	: 1200 : 500
Del. quantity cm3/1000 strokes Tolerance	: 167.0
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure hPa Rated speed rpm	: - : 500
Del. quantity cm3/1000 strokes Tolerance	: 88.0
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 13.00 : 1145 : + 5
STARTING FUEL DELI	
Rated speed rpm rack travel mm Tolerance mm	: 100 : 12.50 : + 0.30

Del. quantity cm3/1000 strokes : 90.0 Tolerance cm3/1000 strokes : +- 15.0 Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm 300 7.80 rack travel mm Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.03.96 Test oil : ISO 4113

Combination No. : 0 402 046 875

Injection pump

Pump designation : PES6P110A320RS3329Z

EP type number : 0 412 016 744

Governor

Governer design. : RQV325...1250PA1251

Governer no. : 0 421 814 164

Cust. part No. : 1309376/0

Customer-spec. information Customer : DAF : NS156M Motor Power KW : 156.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 160 Tolerance L/h : +- 20.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 : +- 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance "NW : +- 0.50

Start of delivery mark

: + 0.10Tolerance

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.85

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 144.0 Tolerance	guide sleeve - travel mm : 13.50 - Tolerance mm : +- 0.50
cm3/1000 strokes : + 1.0 Check tolerance	- GUIDE SLEEVE POSITION
cm3/1000s. : + 4.0	Rated speed rpm : 1370
Spreed Tolerance cm3/1000 strokes : 4.0	Rack travel in mm : 10,85 Tolerance mm : + 1.30
Check tolerance cm3/1000s. : 7.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 325	- Rated speed rpm : 1000 - Aneroid pressure - hPa : 1500
Rack travel in mm: 5.00	Del. quantity
Tolerance mm : + 0.20	cm3/1000 strokes : 144.0
Del. quantity + cm3/1000 strokes : 26.0 +	· Tolerance · cm3/1000 strokes : +- 1.0
Tolerance	Check tolerance
cm3/1000 strokes : +- 2.5	cm3/1000s. : +- 4.0
Check tolerance +- 5.0 +- 5.0	· Spreed · Tolerance
Spreed	cm3/1000 strokes : 4.0
Tolerance	Check tolerance
cm3/1000 strokes : 12.0 + Check tolerance	cm3/1000s. : 7.5
cm3/1000s. : 15.0	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control Lever control lever position degree : 123.0 tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	toterance degree : +- 4.0
Rated speed rpm : 325	RATED SPEED
guide sleeve	rack travel mm : 10.85
travel mm : 1.25 + 0.20 +	Rated speed rpm : 1285 Tolerance 1/min : +- 5
+	rocci and irmin
Rated speed rpm : 1298	rack travel mm : 4.00 Rated speed rpm : 1360
guide sleeve + travel mm : 10.25 +	Rated speed rpm : 1360 Tolerance 1/min : +- 15
Tolerance mm : +- 0.15	
Rated speed rpm : 863	rack travel mm : 0.50 Tolerance mm : +- 0.50
guide sleeve + travel mm : 5.41 +	Rated speed rpm : 1500
Tolerance mm : + 0.25	
Rated speed rpm : 520 + guide sleeve +	LOW IDLE
travel mm : 3.02 +	
Tolerance mm : + 0.25	control lever
Rated speed rpm : 1510	position degree : 76.0 tolerance degree : +- 4.0

Testing:

Rated speed rpm	•	325
rack travel mm	:	4.50
Tolerance mm	: +-	0.10

TORQUE CONTROL

Rated speed rpm	:	1000
rack travel mm	:	11.85
Tolerance mm	:	+ 0.05

Rated speed rpm	:	700
rack travel mm	:	11.85
Tolerance mm	: +	- 0.10

Rated speed rpm	:	1250
rack travel mm	:	11.85
Tolerance mm	:	+- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	600
Pressure hPa	:	1500
rack travel mm	:	11.85
Tolerance mm	:	+- 0.05

MEASUREMENT

Pressure hPa	;	-
Rated speed rpm	:	600
rack travel mm	:	7.00
Tolerance mm	: +	- 0.20

Rated speed rpm : 600

Pressure hPa	:	370
rack travel mm	:	10.75
Tolerance mm	: +-	0.05

Pressure hPa	:	200
rack travel mm	:	8.40
Tolerance mm	: +	0.10

FUEL DELIVERY CHARACTERISTICS

hPa	:	1500
Rated speed rpm	:	700
Nal minamatani		

Del. quantity

cm3/1000 strokes : 145.0

Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance

cm3/1000s. + 6.0

Aneroid pressure

hPa	:	
Rated speed rpm	:	600
Del. quantity		
cm3/1000 strokes	:	98.5
 1 ⋅		

Tolerance cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : +- 3.5

BREAKAWAY

Rack travel in mm : 10.85 Rated speed rpm : 1285 Tolerance 1/min : +- 5

LOW IDLE

Rated speed rpm	:	325
rack travel mm	:	5.00
Tolerance mm	: +-	- 0.20
Del. quantity		
cm3/1000 strokes	:	26.0
Tolerance		
cm3/1000 strokes	: +-	2.5
Check tolerance		
cm3/1000s.	: +-	5.0
Spreed		
Tolerance		
cm3/1000 strokes	:	12.0
Check tolerance		
cm3/1000s.	:	15.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.03.96 Test oil : ISO 4113

Combination No. : 0 402 046 876

Injection pump

Pump designation : PES6P110A320RS3329Y EP type number : 0 412 016 756

Governor

Governer design. : RQV325...1250PA1251 Governer no. : 0 421 814 164

Cust. part No. : 1309375/0

Customer-spec. information Customer : DAF Motor : NS133M Power KW : 133.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. l/h : 160 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.85 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 146.0	guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
cm3/1000 strokes : + 1.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 1370
Spreed Tolerance cm3/1000 strokes : 4.0	Rack travel in mm : 10.85 Tolerance mm : +- 1.30
Check tolerance cm3/1000s. : 7.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 325	Rated speed rpm : 1000 Aneroid pressure hPa : 1500
Rack travel in mm: 5.00 - Tolerance mm: + 0.20 - Del. quantity -	Del. quantity cm3/1000 strokes : 146.0 Tolerance
cm3/1000 strokes : 26.0 - Tolerance -	cm3/1000 strokes : + 1.0 Check tolerance
cm3/1000 strokes : +- 2.5 Check tolerance	- cm3/1000s. : +- 4.0 - Spreed
cm3/1000s. : + 5.0 - Spreed - Tolerance -	Tolerance : 4.0 Check tolerance
cm3/1000 strokes : 12.0 - Check tolerance -	cm3/1000s. : 7.5
cm3/1000s. : 15.0	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control Lever position degree : 123.0
GUIDE SLEEVE TRAVEL	tolerance degree : +- 4.0
Rated speed rpm : 325	RATED SPEED - rack travel mm : 10.85
travel mm : 1.25 Tolerance mm : + 0.20	Rated speed rpm : 1285 Tolerance 1/min : +- 5
Rated speed rpm : 1298 - guide sleeve - travel mm : 10.25 -	rack travel mm : 4.00 Rated speed rpm : 1360 Tolerance 1/min : +- 15
Tolerance mm : +- 0.15	rack travel mm : 0.50
Rated speed rpm : 863 guide sleeve	- Tolerance mm : +- 0.50 - Rated speed rpm : 1500
travel mm : 5.41 Tolerance mm : +- 0.25	
Rated speed rpm : 520 - guide sleeve	LOW IDLE
travel mm : 3.02 - Tolerance mm : +- 0.25 -	- control lever
Rated speed rpm : 1510	- position degree : 76.0 - tolerance degree : +- 4.0

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Testing:

Rated speed rpm 325 4.50 rack travel mm Tolerance mm : + 0.10

225 Rated speed rpm

6.00 CRT mm min. : >

375 Rated speed rpm

TORQUE CONTROL

1000 Rated speed rpm rack travel mm 11.85 Tolerance mm 0.05

700 Rated speed rpm 11.85 rack travel mm : + - 0.10Tolerance mm

1250 Rated speed rpm rack travel mm 11.85 : + - 0.10Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

600 Rated speed rpm 1500 Pressure hPa rack travel mm 11.85 Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa Rated speed rpm 600 rack travel mm 6.40 Tolerance mm 0.20

600 Rated speed rpm

Pressure hPa : 310 rack travel mm 10.55 : +- 0.05 Tolerance mm

130 Pressure hPa 7.85 rack travel mm Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1500 700 Rated speed rpm Del. quantity

cm3/1000 strokes : 147.5

Tolerance

cm3/1000 strokes : +-3.0 Check tolerance

cm3/1000s. 6.0

Aneroid pressure

hPa 600 Rated speed rpm

Del. quantity cm3/1000 strokes : 88.0 Tolerance

cm3/1000 strokes 1.0

Check tolerance 3.5 cm3/1000s.

BREAKAWAY

Rack travel in mm : 10.85 Rated speed rom : 1285 Tolerance 1/min

LOW IDLE

Rated speed rpm

5.00 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 26.0 Tolerance cm3/1000 strokes : +-2.5 Check tolerance cm3/1000s.5.0 : +-Spreed Tolerance 12.0 cm3/1000 strokes : Check tolerance cm3/1000s. 15.0

325

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 646 742

Injection pump

Pump designation : PE6P12OA32OLS7837-2

EP type number : 0 412 626 943

Governor

Governer design. : RQ300/1100PA1272 : 0 421 801 804 Governer no.

Cust. part No. : 0270743002

Customer-spec. information Customer : MB-NFZ : 0M441 LA Motor Power KW : 228.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

: 120 min. L/h Tolerance l/h: + 20.0

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter:

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.25 : +- 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm : 20.50 Tolerance mm : \leftarrow 0.50

: 6-3-5-2-4-Firing order

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance *NW : +- 0.75

Barrel no. 6

BASIC SETTING

600 Rated speed rpm :

Rack travel in mm : 12,60

Rack travel in mm : 12.60

Tolerance mm Tolerance mm	: +- 0.05 : +- 0.05	+ Tolerance mm : + 0.10 + Rated speed rpm : 570
Del. quantity cm3/1000 strokes	: 193.5	guide sleeve travel mm : 6.00 Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 1350
Check tolerance cm3/1000s.	: + 4.0	+ guide sleeve + travel mm : 11.50 + Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes	: 6.0	GUIDE SLEEVE POSITION Rated speed rpm : 650
Check tolerance cm3/1000s.	: 9.0	Rack travel in mm: 20.00
Rated speed rpm	: 300	
	: 6.00 : +- 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes Tolerance	: 19.0	Rated speed rpm : 600 Aneroid pressure hPa : 600
cm3/1000 strokes Check tolerance	: + 3.0	Del. quantity cm3/1000 strokes : 193.5
cm3/1000s. Spreed	: +- 6.0	Tolerance + cm3/1000 strokes : + 1.0
Tolerance cm3/1000 strokes	: 6.0	+ Check tolerance + cm3/1000s. : +- 4.0
Check tolerance cm3/1000s.	: 10.0	+ Spreed + Tolerance + cm3/1000 strokes : 6.0
(B) SETTING OF INWITH GOVERNOR	JECTION PUMP	+ Check tolerance + cm3/1000s. : 9.0
GUIDE SLEEVE TRAVE		CONTROL LEVER
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.94 : + 0.20	control lever position degree : 94.0 tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1153 : 6.37 : + 0.15	rack travel mm : 12.80 Rated speed rpm : 1140 Tolerance 1/min : +- 8
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1100 : 6.00 : +- 0.10	rack travel mm : 4.00 Rated speed rpm : 1250 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve travel mm	: 431 : 4.71	rack travel mm : 0.75 Tolerance mm : +- 0.75 Rated speed rpm : 1350

Rated speed rpm : > LOW IDLE control lever 72.0 position degree : tolerance degree : +- 4.0 Testing: 300 Rated speed rpm 5.60 rack travel mm : + 0.10Tolerance mm 2,00 rack travel mm Rated speed rpm 400 Tolerance 1/min 20 Rated speed rpm 200 : > 9.00 CRT mm min. TORQUE CONTROL 600 Rated speed rpm rack travel mm 12.60 : **←** 0.05 Tolerance mm Rated speed rpm 1100 13.70 rack travel mm : +- 0.10 Tolerance mm 700 Rated speed rpm 13.70 rack travel mm : +- 0.10 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST **MEASUREMENT** 200 Pressure hPa -2.00rack travel mm : +- 0.05 Tolerance mm 350 Pressure hPa -0.80rack travel mm Tolerance mm : + 0.15 850 Pressure hPa 0.50 rack travel mm Tolerance mm : +- 0.05 STARTING FUEL DELIVERY START CUT-OUT Rated speed rpm :

Rated speed rpm	: < 220
Check	. 00
speed 1/min	: > 80
Check speed 1/min	: < 240
FUEL DELIVERY CHAI	RACTERISTICS
Aneroid pressure	4500
hPa	: 1500 : 1100
Rated speed rpm	: 1100
Del. quantity cm3/1000 strokes	: 219.0
Tolerance	. 217.0
cm3/1000 strokes	: +- 1.5
Check tolerance	· · · · · · · · · · · · · · · · · · ·
cm3/1000s.	: +- 4.5
Spreed	
Tolerance	0.0
cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
CIID7 10005.	. 12.0
Aneroid pressure	
hPa	: 1500
Rated speed rpm	: 700
Del. quantity	
cm3/1000 strokes	: 214.0
Tolerance	70
cm3/1000 strokes Check tolerance	: +- 3.0
cm3/1000s.	: +- 6.0
	J. J. J. J. J. J. J. J. J. J. J. J. J. J
Aneroid pressure	
hPa	: -
Rated speed rpm	: 500
Del. quantity cm3/1000 strokes	: 151.0
cms/ luuu strokes Tolerance	: 151.0
cm3/1000 strokes	: +- 1.0
Check tolerance	
cm3/1000s.	: + 4.0
BREAKAWAY	·····
Rack travel in mm	: 12.80
Rated speed rpm Folerance 1/min	
talamamaa 1/min	: +- 8
iolerance i/min	•

100

100

Del. quantity cm3/1000 strokes : 240.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 300 rack travel mm 6.00 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000S. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05,03,96 Test oil : ISO 4113

Combination No. : 0 402 678 822

Injection pump

Pump designation : PE8P120A320LS7840-2 : 0 412 628 873 EP type number

Governor

Governer design. : RSV350...1050P0A535

: -10

Governer no. : 0 421 833 395

Cust. part No. : 0220743002

Customer-spec. information Customer : MB-NFZ : OM 442 A Motor : 250.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Overflow quantity

: 110 min. L/h Tolerance l/h: \leftarrow 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar : + 1.5 Tolerance bar

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 2
x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : +- 1.0

Prestroke mm : 5,25 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 : +- 0.50 Tolerance mm

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + - 0.30

Check

tolerance *NW : +- 0.50

Start of delivery mark

Barrel no. :

BASIC SETTING

Rated speed rpm : 1030

Rack travel in mm: 12.65 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 194.0

Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 99.0
Spreed Tolerance cm3/1000 strokes : 6.0	tolerance degree : + 4.0
Check tolerance cm3/1000s. : 9.0 -	LOW IDLE
Rated speed rpm : 350	
Rack travel in mm: 5.40 - Tolerance mm: + 0.30 - Del. quantity -	control lever position degree : 76.0 tolerance degree : + 4.0
cm3/1000 strokes : 13.0 -	Testing:
<pre>cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0</pre>	Rated speed rpm : 350 rack travel mm : 5.40 Tolerance mm : +- 0.10
Spreed Tolerance cm3/1000 strokes : 8.0 - Check tolerance	rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : +- 30
cm3/1000s. : 12.0	Rated speed rpm : 100
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CRT mm min. : > 19.50
-	SET IDLE AUXILIARY SPRING
GUIDE SLEEVE POSITION	Rated speed rpm : 100 rack travel mm : 2.00
Rated speed rpm : 800	TODOLIC CONTROL
Rack travel in mm: 0.50	TORQUE CONTROL
Tolerance mm : + 0.20	Rated speed rpm : 1030 - rack travel mm : 12.65 - Tolerance mm : +- 0.05
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1030 Aneroid pressure	- Rated speed rpm : 700 - rack travel mm : 13.20 - Tolerance mm : +- 0.10
hPa : 1200 - Del. quantity - cm3/1000 strokes : 194.0 - Tolerance - cm3/1000 strokes : + 1.0 -	Rated speed rpm : 900 rack travel mm : 12.90 Tolerance mm : + 0.10
Check tolerance - cm3/1000S. : +- 4.0 - Spreed	- ANEROID/ALTITUDE - COMPENSATOR TEST
Tolerance cm3/1000 strokes : 6.0 - Check tolerance -	
cm3/1000s. : 9.0	MEASUREMENT

Pressure hPa Rated speed rpm	:	500
Pressure hPa rack travel mm Tolerance mm	: +-	350 0.45 0.05
Pressure hPa rack travel mm Tolerance mm	: : : +-	700 1.70 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure			
hPa	:	•	1200
Rated speed rpm	:		700
Del. quantity			
cm3/1000 strokes	:		210.0
Tolerance			
cm3/1000 strokes	:	+-	2.0
Check tolerance			
cm3/1000s.	:	+-	5.0
Spreed			
Tolerance			

cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 137.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 4.0
Spreed
Tolerance

cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 210.0
Tolerance
cm3/1000 strokes : +- 10.0
Check tolerance
cm3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm	:	350	
rack travel mm	:	5.40	
Tolerance mm	: +-	0.30	
Del. quantity			
cm3/1000 strokes	:	13.0	
Tolerance			
cm3/1000 strokes	; +-	3.0	
Check tolerance			
cm3/1000s.	: +-	6.0	
Spreed			
Tolerance			
cm3/1000 strokes	:	8.0	
Check tolerance	•		
cm3/1000S.	•	12.0	
·	•	,	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07,02,96 Test oil : ISO 4113

Combination No. : 0 402 946 014

Injection pump

Pump designation : PES6P120A720LS8037 EP type number : 0 412 926 024

Governor

Governer design. : RQV250...1050PA1236K

Governer no. : 0 421 815 970

Cust. part No. : 1370101

Customer-spec. information Customer : SCANIA Motor : DSC1202

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C : +- ž.0 Tolerance °C

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 85 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

bar : 251.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter:

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.40 Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.00 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance °NW : + 0.50

Start of delivery blocking

*NW after s.o.d. : 180.00 Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 775

Rack travel in mm: 14.05

Tolerance mm : + 0.05	Rated speed rpm : 1310
Del. quantity - cm3/1000 strokes : 330.0 -	guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : + 1.0	
Check tolerance cm3/1000s. : +- 10.0	GUIDE SLEEVE POSITION Rated speed rpm : 1170
Spreed Tolerance cm3/1000 strokes : 8.0	Rack travel in mm : 12.10 Tolerance mm : + 1.30
Check tolerance cm3/1000s. : 14.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 250	Rated speed rpm : 775 Aneroid pressure hPa : 1500
Rack travel in mm: 4.60 Tolerance mm: + 0.30 Del. quantity	Del. quantity cm3/1000 strokes : 330.0 Tolerance
cm3/1000 strokes : 19.0 - Tolerance -	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : + 3.0 - Check tolerance - cm3/1000s. : + 6.0 -	- cm3/1000S. : +- 10.0 - Spreed - Tolerance
Spreed - Tolerance -	- cm3/1000 strokes : 8.0 - Check tolerance
cm3/1000 strokes : 4.0 - Check tolerance - cm3/1000s. : 8.0 -	- cm3/1000s. : 14.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CONTROL LEVER control lever position degree : 63.0
GUIDE SLEEVE TRAVEL	tolerance degree : +- 4.0 - control lever
Rated speed rpm : 250 guide sleeve travel mm : 1.79 Tolerance mm : + 0.20	position degree : 121.0 tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm : 1116 guide sleeve travel mm : 10.09 Tolerance mm : + 0.15	rack travel mm : 12.10 Rated speed rpm : 1095 Tolerance 1/min : +- 5
Rated speed rpm : 644 guide sleeve	- rack travel mm : 4.00 - Rated speed rpm : 1180 - Tolerance 1/min : +- 15
travel mm : 4.47 Tolerance mm : +- 0.25	rack travel mm : 0.50 Tolerance mm : +- 0.50
Rated speed rpm : 290 guide sleeve	Rated speed rpm : 1300
travel mm : 2.62 Tolerance mm : +- 0.25	•

		+ Tolerance mm	: +- 0.20
LOW IDLE		Rated speed rpm	: 775
control lever position degree tolerance degree	: 75.0 : +- 4.0	Pressure hPa rack travel mm Tolerance mm	: 300 : 9.80 : + 0.15
control lever position degree tolerance degree	: 17.0	Pressure hPa rack travel mm Tolerance mm	: 11.50
Testing:		START CUT-OUT	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 4.60 : + 0.30	Rated speed rpm Rated speed rpm	
Rated speed rpm	: 150	+ Check + speed 1/min + Check	: > 80
CRT mm min.	: > 7.30	speed 1/min	: < 190
Rated speed rpm	: 275	FUEL DELIVERY CHA	RACTERISTICS
TORQUE CONTROL		+ Aneroid pressure + hPa	: 1500
Rated speed rpm rack travel mm Tolerance mm	: 14.05	Rated speed rpm Del. quantity cm3/1000 strokes	: 650
Rated speed rpm rack travel mm Tolerance mm	: 650 : 13.05 : +- 0.10	+ Tolerance + cm3/1000 strokes + Check tolerance + cm3/1000s.	
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 13.10	+ Aneroid pressure + hPa + Rated speed rpm + Del. quantity	: 1500 : 1050
Rated speed rpm Tolerance mm	: 675 : + 0.30	cm3/1000 strokes Tolerance cm3/1000 strokes	
ANEROID/ALTITUDE		Check tolerance cm3/1000s.	: +- 8.0
COMPENSATOR TEST		Aneroid pressure hPa Rated speed rpm	: 1500 : 675
Rated speed rpm Pressure hPa rack travel mm	: 775 : 1500 : 14.05	Tolerance cm3/1000 strokes check tolerance cm3/1000s.	: + 4.0 : + 10.0
Tolerance mm	: +- 0.10	Aneroid pressure	•
MEASUREMENT Pressure hPa		+ hPa + Rated speed rpm + Del. quantity	950
TENEGINED BYS	-	+ bel. quantity + cm3/1000 strokes	: 2.0

Tolerance cm3/1000 strokes : +-2.0 Aneroid pressure 500 Rated speed rpm Del. quantity cm3/1000 strokes : 192.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 BREAKAWAY Rack travel in mm: 12.10 Rated speed rpm : 1095 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 10.70 Tolerance mm : +- 0.50 Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 20.0Check tolerance cm3/1000s. : +- 24.0 LOW IDLE 250 Rated speed rpm 4.60 rack travel mm 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance 6.0 cm3/1000s. : +-Spreed Tolerance 4.0 cm3/1000 strokes : Check tolerance 8.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.02.96 : ISO 4113

Combination No. : 0 402 946 018

Injection pump

Pump designation : PES6P120A720RS8041

EP type number : 0 412 926 027

Governor

Governer design. : RQV250...950PA1253

Governer no. : 0 421 814 166

Cust. part No. : 1383215

Customer-spec. information Customer : SCANIA

: DSC 11.75 Motor

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

: 251.5 bar

Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar : + 1.0

: 4.40 : + 0.05 Prestroke mm

Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm : 20.50 Tolerance mm : + 0.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance 'NW : + 0.50

Start of delivery blocking

: +- 0.50Tolerance

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm: 11.20

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 261.0	guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
Tolerance + cm3/1000 strokes : +- 1.0 +	CHINE OF EDITE DOCUTION
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : +- 8.0	Rated speed rpm : 1235
Spreed Tolerance	Rack travel in mm : 10.20 Tolerance mm : + 1.30
cm3/1000 strokes : 8.0	Total differential . 1.30
Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : 14.0 +	700
Rated speed rpm : 250	Rated speed rpm : 700 Aneroid pressure
Rack travel in mm: 5.60	hPa : 1500 Del. quantity
Tolerance mm : + 0.30	cm3/1000 strokes : 261.0
Del. quantity	Tolerance
cm3/1000 strokes : 16.0 +	cm3/1000 strokes : +- 1.0
Tolerance + 3.0 +	Check tolerance cm3/1000s. : + 8.0
Check tolerance	Spreed : + a.u
cm3/1000s. : +- 6.0	Tolerance
Spreed	cm3/1000 strokes : 8.0
Tolerance + cm3/1000 strokes : 4.0 +	Check tolerance cm3/1000s. : 14.0
cm3/1000 strokes : 4.0 +	CIID/ 10008. : 14.0
cm3/1000s. : 8.0	
+	
(D) CETTING OF THISETION DUMP	CONTROL LEVER
(B) SETTING OF INJECTION PUMP	control lever
72111 0012111011	position degree : 59.0
	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	control lovon
Rated speed rpm : 250	control lever position degree : 112.0
guide sleeve	tolerance degree : +- 4.0
travel mm : 1.31	
Tolerance mm : + 0.20	RATED SPEED
Rated speed rpm : 1006	rack travel mm : 10.20
guide sleeve +	Rated speed rpm : 995
travel mm : 7.25 + Tolerance mm : + 0.15 +	Tolerance 1/min : +- 5
Tolerance mm : +- 0.15	rack travel mm : 4.00
Rated speed rpm : 673	Rated speed rpm : 1130
guide sleeve +	Tolerance 1/min : + 15
travel mm : 4.96 +	
Tolerance mm : +- 0.25	rack travel mm : 0.50
Rated speed rpm : 420	Tolerance mm : +- 0.50 Rated speed rpm : 1250
guide sleeve travel mm : 3.37	
Tolerance mm : +- 0.25	
+	LOW IDLE
Rated speed rpm : 1390 +	

		+		
control lever position degree tolerance degree	: 66.0 : +- 4.0	‡	START CUT-OUT	
control lever position degree	: 12.0	+	Rated speed rpm Rated speed rpm	: > 100 : < 170
tolerance degree Testing:	: + 4.0	†	Check speed 1/min Check	
Rated speed rpm rack travel mm Tolerance mm	: 5.60	‡	speed 1/min FUEL DELIVERY CHA	
Rated speed rpm	: 150	‡	Aneroid pressure	
CRT mm min.	: > 7.00	‡	hPa Rated speed rpm	: 1500 : 950
Rated speed rpm	: 300	‡	Del. quantity cm3/1000 strokes Tolerance	: 245.0
TORQUE CONTROL			cm3/1000 strokes Check tolerance cm3/1000s.	
Rated speed rpm rack travel mm Tolerance mm	: 11.20	T + +	Aneroid pressure hPa	: -
Rated speed rpm rack travel mm Tolerance mm	: 11.20	† † †	Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 153.0
ANEROID/ALTITUDE COMPENSATOR TEST		+	Check tolerance cm3/1000s.	: +- 4.0
SETTING		‡ †	BREAKAWAY	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 11.20 : + 0.05	† † †	Rack travel in mm Rated speed rpm Tolerance 1/min	: 995
MEASUREMENT		1	STARTING FUEL DEL	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 500 : 8.20 : + 0.20		Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 100 : 20.50 : +- 0.50
Rated speed rpm	: 500	<u>I</u>	cm3/1000 strokes Tolerance	: 170.0
Pressure hPa rack travel mm Tolerance mm	: 290 : 9.00 : +- 0.15	+	cm3/1000 strokes Check tolerance cm3/1000s.	: + 20.0 : + 24.0
Pressure hPa rack travel mm Tolerance mm	: 540 : 10.40 : +- 0.05	‡		

LOW IDLE

Rated speed rpm	:	250
rack travel mm	:	5.60
Tolerance mm	: +-	0.30
Del. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	4.0
Check tolerance		
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.02.96 Test oil : ISO 4113

Combination No. : 0 402 946 019

Injection pump

Pump designation : PES6P120A720RS8041 EP type number : 0 412 926 027

Governor

Governer design. : RQV250...950PA1253

: -1

: 0 421 814 167 Governer no.

Cust. part No. : 1383216

Customer-spec. information : SCANIA Customer : DSC 11.74 Motor

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

: 110 min. L/h Tolerance l/h: + 10.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.40 : +- 0.05 Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 20.50 Tolerance mm : +- 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 : +- 0.30

Tolerance Check

tolerance "NW

: +- 0.50

Start of delivery blocking

: + - 0.50Tolerance

Check

: +- 0.75 tolerance °NW

: 1 Barrel no.

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm: 10.35 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 227.0 Tolerance	guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
cm3/1000 strokes : +- 1.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : +- 7.0	Rated speed rpm : 1250
Spreed Tolerance cm3/1000 strokes : 8.0	Rack travel in mm: 9.35 Tolerance mm: + 1.30
Check tolerance cm3/1000s. : 14.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 250	Rated speed rpm : 700 Aneroid pressure
Rack travel in mm: 5.60 Tolerance mm: + 0.30	hPa : 1500 Del. quantity cm3/1000 strokes : 227.0
Del. quantity cm3/1000 strokes : 16.0 Tolerance	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0	+ cm3/1000s. : + 7.0 + Spreed + Tolerance
Spreed Tolerance	+ cm3/1000 strokes : 8.0 + Check tolerance
cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0	+ cm3/1000s. : 14.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CONTROL LEVER control Lever position degree : 58.0
GUIDE SLEEVE TRAVEL	tolerance degree : + 4.0
Rated speed rpm : 250 guide sleeve travel mm : 1.31	tolerance degree : + 4.0
travel mm : 1.31 Tolerance mm : + 0.20	RATED SPEED
Rated speed rpm : 1005 guide sleeve travel mm : 7.25	rack travel mm : 9.35 Rated speed rpm : 995 Tolerance 1/min : + 5
Tolerance mm : + 0.15	rack travel mm : 4.00 Rated speed rpm : 1115
Rated speed rpm : 673 guide sleeve travel mm : 4.96	Rated speed rpm : 1115 Tolerance 1/min : + 15
Tolerance mm : + 0.25	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 420 guide sleeve travel mm : 3.37	Rated speed rpm : 1250
Tolerance mm : +- 0.25	LOW IDLE
Rated speed rpm : 1390	+

		+	
control lever position degree tolerance degree	: 66.0 : + 4.0	+	START CUT-OUT
control lever position degree tolerance degree	: 12.0 : + 4.0	† †	Rated speed rpm : > 100 Rated speed rpm : < 170 Check
Testing:		‡	speed 1/min :> 80 Check speed 1/min :< 190
Rated speed rpm rack travel mm Tolerance mm			FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 150	+	Aneroid pressure
CRT mm min.	: > 7.00	‡	hPa : 1500 Rated speed rpm : 950
Rated speed rpm	: 300	† †	Del. quantity cm3/1000 strokes : 216.0 Tolerance
TORQUE CONTROL		+	cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 6.0
Rated speed rpm rack travel mm Tolerance mm	: 700 : 10.35 : + 0.05	+	Aneroid pressure
Rated speed rpm rack travel mm Tolerance mm	: 10.35	† † † †	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 153.0 Tolerance cm3/1000 strokes : + 1.0
ANEROID/ALTITUDE COMPENSATOR TEST			Check tolerance cm3/1000s. : + 4.0
SETTING		+	BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1500	+	Rack travel in mm: 9.35 Rated speed rpm: 995 Tolerance 1/min: + 5
MEASUREMENT		<u> </u>	STARTING FUEL DELIVERY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 8.20	 	Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : +- 0.50
Rated speed rpm	: 500	Ŧ	Del. quantity cm3/1000 strokes : 170.0
Pressure hPa rack travel mm Tolerance mm	: 260 : 8.80 : + 0.15	‡ †	Tolerance cm3/1000 strokes : +- 20.0 Check tolerance cm3/1000S. : +- 24.0
Pressure hPa rack travel mm Tolerance mm	: 430 : 9.80 : + 0.05	‡	

LOW IDLE

Rated speed rpm	:	250
rack travel mm	:	5.60
Tolerance mm	: 4	-0.30
Del. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +	- 3.0
Check tolerance		
cm3/1000s.	: 4	- 6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	4.0
Check tolerance		
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.02.96 Edition Test oil : ISO 4113

Combination No. : 0 402 946 302

Injection pump

Pump designation : PES6P120A720LS8514 EP type number : 0 412 926 210

Governor

Governer design. : RQV250...950PA1209K

Governer no. : 0 421 815 972

Cust. part No. : 1369074

Customer-spec. information Customer : SCANIA : DSC1206 Motor

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4.00 : +- 0.05 Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : ← 0.50

Start of delivery blocking

*NW after s.o.d. : 180.00 : +- 0.50 Tolerance

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

825 Rated speed rpm :

Rack travel in mm: 13.45

: +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 375.0

Tolerance		+
cm3/1000 strokes	: +- 1.0	Rated speed rpm : 390 guide sleeve
Check tolerance		+ travel mm : 3.50
cm3/1000s.	: ← 11.0	Tolerance mm : + 0.25
Spreed		Rated speed rpm : 1310
Tolerance		+ guide steeve
cm3/1000 strokes	: 8.0	+ travel mm : 13.50
Check tolerance		Tolerance mm : +- 0.50
cm3/1000s.	: 14.0	I -
C(10) 100001	. 14.0	GUIDE SLEEVE POSITION
Rated speed rpm	: 250	+
		+ Rated speed rpm : 1154
Rack travel in mm		†
Tolerance mm	: +- 0.30	+ Rack travel in mm: 12.45
Del. quantity	. 22.0	† Tolerance mm : +- 1.30
cm3/1000 strokes Tolerance	: 22.0	T
cm3/1000 strokes	: +- 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		-
cm3/1000s.	: 6.0	+ Rated speed rpm : 825
Spreed		+ Aneroid pressure
Tolerance		+ hPa : 1500
cm3/1000 strokes	: 4.0	+ Del. quantity
Check tolerance cm3/1000s.	: 8.0	+ cm3/1000 strokes : 375.0 + Tolerance
CMS/ (UUUS.	: 8.0	+ cm3/1000 strokes : +- 1.0
		Check tolerance
(B) SETTING OF INJ	IECTION PUMP	+ cm3/1000s. : +- 11.0
(B) SETTING OF INJ WITH GOVERNOR	JECTION PUMP	+ cm3/1000s. : + 11.0 + Spreed
	JECTION PUMP	+ cm3/1000S. : + 11.0 + Spreed + Tolerance
WITH GOVERNOR		+ cm3/1000s. : + 11.0 + Spreed + Tolerance + cm3/1000 strokes : 8.0
		+ cm3/1000s. : + 11.0 + Spreed + Tolerance - cm3/1000 strokes : 8.0 + Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVE	EL.	+ cm3/1000s. : + 11.0 + Spreed + Tolerance + cm3/1000 strokes : 8.0
WITH GOVERNOR	EL 250	+ cm3/1000s. : + 11.0 + Spreed + Tolerance - cm3/1000 strokes : 8.0 + Check tolerance
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm	: 250 : 1.67	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve	EL 250	+ cm3/1000s. : + 11.0 + Spreed + Tolerance - cm3/1000 strokes : 8.0 + Check tolerance
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20	- cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm	: 250 : 1.67 : + 0.20 : 1017	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 250 : 1.67 : + 0.20 : 1017	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25 : 302	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70 Rated speed rpm : 995
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25 : 302 : 2.44 : + 0.25	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5 rack travel mm : 4.00
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25 : 302 : 2.44	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1110
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25 : 302 : 2.44 : + 0.25 : 352	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5 rack travel mm : 4.00
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 250 : 1.67 : + 0.20 : 1017 : 9.08 : + 0.15 : 661 : 5.50 : + 0.25 : 302 : 2.44 : + 0.25	cm3/1000s. : + 11.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 115.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1110

Tolerance mm Rated speed rpm	: + 0.50 · 1200	† Tolerance mm	: +- 0.20
nacca opeca rom	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Rated speed rpm	: 825
		Pressure hPa	: 435
LOW IDLE		+ rack travel mm	: 8.90
		rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check speed 1/min Check speed 1/min FUEL DELIVERY CH	: +- 0.15
control lever		Pressure hPa	
position degree		+ rack travel mm	
tolerance degree	: +- 4.0	† Tolerance mm	: +- 0.05
control lever	40.0		
position degree	18.0	+ START CUT-OUT	
tolerance degree	: +- 4.0	† Dotad aread num	. > 400
Testing:		+ Rated speed rpm + Rated speed rpm	
resemg.		+ Kated speed (bill	. < 110
Rated speed rpm		+ Check	
rack travel mm	4.60	+ speed 1/min	: > 80
Tolerance mm	: +- 0.30	+ Check	
Rated speed rpm	: 150	+ speed 1/min	: < 190
CRT mm min.	•> 6.10	FUEL DELIVERY CH	APACTERISTICS
		+	
Rated speed rpm	: 275	+ Aneroid pressure	
		+ hPa + Rated speed rpm	: 1500
TORQUE CONTROL		+ Rated speed rpm + Del. quantity	: 650
TORGOE CONTROL		cm3/1000 strokes	: · 378 በ
Rated speed rpm	• 825	Tolerance	3,0,0
rack travel mm	: 13.45	cm3/1000 strokes	s : +- 4.0
Tolerance mm		+ Check tolerance	
		Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa	
Rated speed rpm rack travel mm Tolerance mm	: 650	+	
rack travel mm	: 12.50	+ Aneroid pressure	
Tolerance mm	: +- 0.10	+ hPa	: 1500
		+ Rated speed rpm	
Rated speed rpm	: 950	+ Del. quantity	
rack travel mm	12.75	+ cm3/1000 strokes	5 : 557.0
Tolerance mm	: 0.10	+ Tolerance + cm3/1000 strokes	· • - / O
		- Check tolerance	
ANEROID/ALTITUDE		- cm3/1000s.	
COMPENSATOR TEST		+	
<u>-</u>		+ Aneroid pressure	•
		+ hPa	: -
SETTING		+ Rated speed rpm	: 500
		+ Del. quantity	407.6
Rated speed rpm	: 825	cm3/1000 strokes	197.0
Pressure hPa	: 1500	+ Tolerance + cm3/1000 strokes	10
rack travel mm Tolerance mm	13.43	- Check tolerance	
ioterance mm	0.10	+ cm3/1000s.	: +- 4.0
MEASUREMENT		T Callot 10000.	• • •••
Pressure hPa		# BREAKAWAY	
Rated speed rpm	825	I DIVENNAMA	
rack travel mm	7.20	1	
. were elected min		ſ	

Rack travel in mm: 11.70
Rated speed rpm: 995
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 10.20 Tolerance mm : +- 0.50

LOW IDLE

Rated speed rpm 250 rack travel mm 4.60 0.30 Tolerance mm Del. quantity 22.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 4.0 cm3/1000 strokes : Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.03.96 Test oil : ISO 4113

Combination No. : 0 403 444 146

Injection pump

Pump designation : PES4MW100/720RS1127

EP type number : 0 413 404 103

Governor

Governer design. : RQV300...1300MW48-1

Governer no. : 0 420 083 084

Cust. part No. : 0190742602

Customer-spec. information
Customer : MB-NFZ
Motor : OM 364 A
Power KW : 85.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.15
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 83.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

. 3.3

Check tolerance	+		
	6.0	FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm : 300	0 †	Rated speed rpm	: 1300
Rack travel in mm: 7.		Aneroid pressure	
Tolerance mm : + 0.	.10 +	hPa	: -
Del. quantity cm3/1000 strokes : 11	1.0 I	Del. quantity cm3/1000 strokes	: 83.0
Tolerance	1	Tolerance	. 03.0
cm3/1000 strokes : +- 2	2.0 +	cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s. : +- 4	4.0	Check tolerance cm3/1000s.	: +- 3.0
Spreed	Ţ	Spreed	3.0
Tolerance	+	Tolerance	
	3.5	cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s. : 5	5.5	Check tolerance cm3/1000s.	: 6.0
CIII-57 (UUUS . : : : : : : : : : : : : : : : : : :	J.,	CM37 10003.	: 0.0
	+		
(B) SETTING OF INJECTION F	PUMP +	CONTROL	
WITH GOVERNOR	1	CONTROL LEVER	
		control lever	
GUIDE SLEEVE TRAVEL	+	position degree	
700	<u> </u>	tolerance degree	: +- 4.0
Rated speed rpm : 300 guide sleeve	.	RATED SPEED	
	.37	NATED STEED	
Tolerance mm : +- 0.		rack travel mm	
- · · · · · · · · · · · · · · · · · · ·	, +	Rated speed rpm	
Rated speed rpm : 1354 guide sleeve	† 1	Tolerance 1/min	: + 5
	.65	rack travel mm	: 4.00
Tolerance mm : +- 0.		Rated speed rpm	: 1445
Date	. †	Tolerance 1/min	: +- 15
Rated speed rpm : 885 guide sleeve	' I	rack travel mm	: 0.50
travel mm : 5.	.01	Tolerance mm	: + 0.50
Tolerance mm : + 0.	.25	Rated speed rpm	: 1550
2-1 1 1 (00	, +		
Rated speed rpm : 490 guide sleeve	' I	-	
travel mm : 2.	.86	LOW IDLE	
Tolerance mm : + 0.	25 +		
Rated speed rpm : 1610	, †	control lever	
Rated speed rpm : 1610 guide sleeve	,	position degree	: 66.0
travel mm : 11.	50 +	tolerance degree	
Tolerance mm $: + 0.$	50 +		
		Testing:	
GUIDE SLEEVE POSITION	I	Rated speed rpm	: 300
	+	rack travel mm	: 7.85
Rated speed rpm : 1440	†	Tolerance mm	: ← 0.05
Rack travel in mm : 10.0	00 I	Rated speed rpm	: 200
Tolerance mm : +- 2.		•	
	+	CRT mm min.	: > 9.50
	+		

TORQUE CONTROL 1300 Rated speed rpm 11.15 rack travel mm Tolerance mm 0.05 750 Rated speed rpm 12.00 rack travel mm Tolerance am : +- 0.10 Rated speed rpm 585 rack travel mm 12.20 : + 0.10Tolerance mm Rated speed rom 1000 rack travel mm 11.20 + 0.10 Tolerance mm START CUT-OUT Rated speed rpm 100 230 Rated speed rpm ; < Check speed 1/min 80 : > Check 250 speed 1/min : < FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 750 Rated speed rpm Del. quantity cm3/1000 strokes 80.0 Tolerance cm3/1000 strokes 1.5 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes 5.0 Check tolerance 7.0 cm3/1000s. Aneroid pressure hPa 585 Rated speed rpm Del. quantity cm3/1000 strokes 75.0 Tolerance cm3/1000 strokes 1.5

BREAKAWAY

Rack travel in mm : 10.10
Rated speed rpm : 1345
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 83.0
Tolerance
cm3/1000 strokes : +- 5.0
Check tolerance
cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm 300 7.85 rack travel mm Tolerance mm 0.10 Del. quantity cm3/1000 strokes 11.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes 3.5 Check tolerance 5.5 cm3/1000s.

End of test specification sheet

Check tolerance cm3/1000s.

4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.03.96 Test oil : ISO 4113

Combination No. : 0 403 476 145

Injection pump

Pump designation : PES6MW100/320RS1244

: 0 413 406 244 EP type number

Governor

Governer design. : RSV300...1100MW1A399

Governer no. : 0 420 085 289

Cust. part No. :

Customer-spec. information Customer : SISU Motor : 634 DWE Power KW : 154.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

: 1 680 750 008 Test lines

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 3.55 Tolerance mm : +- 0.05 Check tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.50 Tolerance

Check

tolerance °NW : **←** 0.75

Start of delivery blocking

Barrel no.

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm: 12.10 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0

Dun		
Spreed Tolerance cm3/1000 strokes	: 4.0	CONTROL LEVER
Check tolerance cm3/1000s.	: 7.5	position degree : 112.0 tolerance degree : + 4.0
Rated speed rpm	: 500	RATED SPEED
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: +- 0.20	rack travel mm : 11.10 Rated speed rpm : 1130 Tolerance 1/min : + 5
	: +- 2.0 : +- 4.5	rack travel mm : 4.00 Rated speed rpm : 1180 Tolerance 1/min : +- 15
Spreed Tolerance cm3/1000 strokes Check tolerance	+	rack travel mm : 1.00 Tolerance mm : + 0.70 Rated speed rpm : 1300
cm3/1000s.	: 5.5	rack travel mm : 4.00 Rated speed rpm : 1190
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	LOW IDLE
GUIDE SLEEVE POSIT	ION : 800	control lever position degree : 84.0 tolerance degree : +- 4.0
Rack travel in mm Tolerance mm	: 0.65 : + 0.35	Setting point w/out bumper spring
governor spring pre-tension	† †	Rated speed rpm : 500 rack travel mm : 3.80
click setting x	: 5.50	Testing:
FULL LOAD DELIVERY	+	Rated speed rpm : 500 rack travel mm : 4.30 Tolerance mm : +- 0.10
Rated speed rpm Aneroid pressure hPa Del. quantity	: 1200	rack travel mm : 2.00 Rated speed rpm : 560 Tolerance 1/min : +- 30
cm3/1000 strokes Tolerance	+	
cm3/1000 strokes Check tolerance	: +- 1.0	TORQUE CONTROL
cm3/1000s. Spreed Tolerance	: +- 4.0	Rated speed rpm : 1075 rack travel mm : 12.10 Tolerance mm : +- 0.05
cm3/1000 strokes Check tolerance cm3/1000s.	: 4.0 + + + + + + + + + + + + + + + + + + +	Rated speed rpm : 600 rack travel mm : 12.10
	‡	Tolerance mm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 12.10
Tolerance mm : +- 0.10

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 9.90
Tolerance mm : +- 0.05

Rated speed rpm : 500

Pressure hPa : 750 rack travel mm : 11.50 Tolerance mm : + 0.15

Pressure hPa : 400 rack travel mm : 10.25 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200
Rated speed rpm : 600
Del. quantity
cm3/1000 strokes : 146.0
Tolerance
cm3/1000 strokes : +- 2.0
Check tolerance

Check tolerance

cm3/1000s. : ← 5.0 Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. : 9.0

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 94.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm: 11.10
Rated speed rpm: 1130
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 130.0
Tolerance
cm3/1000 strokes : +- 5.0
Check tolerance
cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm 500 4.30 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes 3.5 Check tolerance cm3/1000s.5.5

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.03.96 Test oil : ISO 4113

Combination No. : 0 400 876 434

Injection pump

Pump designation : PES6A95D41ORS2864 EP type number : 0 410 896 888

Governor

Governer design. : RSV400...1050A8C2263

: -11L

Governer no. : 0 420 232 635

Cust. part No. : 87 800 972

Customer—spec. information Customer : NH Motor : P 396 Power KW : 172.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.60
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 13.50 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 132.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

ر, د

Check tolerance cm3/1000s. : 8.0	Tolerance mm : + 0.55 Rated speed rpm : 1300
Rated speed rpm : 450	Rated speed rpm : 1079 rack travel mm : 11.35
Rack travel in mm : 5.50 Tolerance mm : + 0.10 Del. quantity	Rated speed rpm : 1154 Tolerance 1/min : + 5
cm3/1000 strokes : 15.0 Tolerance	rack travel mm : 4.00
cm3/1000 strokes : + 2.0 Check tolerance	rack travel mm : 0.85 Tolerance mm : +- 0.55
cm3/1000s. : + 4.5 Spreed	Rated speed rpm : 1300
Tolerance cm3/1000 strokes : 5.5 Check tolerance	Rated speed rpm : 1080 rack travel mm : 11.35
cm3/1000s. : 9.0	Rated speed rpm : 1155 Tolerance 1/min : + 5
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
WITH GOVERNOR	+ rack travel mm : 0.85 + Tolerance mm : + 0.55 + Rated speed rpm : 1300
GUIDE SLEEVE POSITION	+
governor spring	+ Rated speed rpm : 1081 + rack travel mm : 11.35
pre-tension click setting x : 4.50	Rated speed rpm : 1156 Tolerance 1/min : +- 5
	rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 0.85 Tolerance mm : +- 0.55
Rated speed rpm : 700 Aneroid pressure	Rated speed rpm : 1300
hPa : 1200 Del. quantity cm3/1000 strokes : 132.5	Rated speed rpm : 1082 rack travel mm : 11.35
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1157 Tolerance 1/min : +- 5
Check tolerance cm3/1000s. : +- 3.0	+ rack travel mm : 4.00
Spreed - Tolerance -	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1300
cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	+
cm3/1000s. : 8.0	Rated speed rpm : 1083 rack travel mm : 11.35
ASSEMBLY GOVERNOR SETTING	Rated speed rpm : 1158 Tolerance 1/min : +- 5
Rated speed rpm : 1078 - rack travel mm : 11.35 -	rack travel mm : 4.00
Rated speed rpm : 1153 - Tolerance 1/min : +- 5	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1300
rack travel mm : 4.00	- Nated Speed (pin . 1000
rack travel mm : 0.85	LOW IDLE

Testing:

Rated speed rpm : 450 rack travel mm : 5.50 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 600
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 13.50 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 13.55 Tolerance mm : + 0.10

Rated speed rpm : 1025 rack travel mm : 11.20 Tolerance mm : + 0.05

Rated speed rpm : 1025 rack travel mm : 12.35 Tolerance mm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 13.55
Tolerance mm : + 0.10

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 9.70
Tolerance mm : +- 0.05

Rated speed rpm : 500

Pressure hPa : 650 rack travel mm : 12.50 Tolerance mm : +- 0.05

Pressure hPa : 450 rack travel mm : 11.00 Tolerance mm : + 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 81.0

Tolerance

cm3/1000 strokes : + 1.0 Check tolerance

cm3/1000s. : +- 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity

cm3/1000 strokes : 160.0

Tolerance

cm3/1000 strokes : +- 8.0

Check tolerance

cm3/1000s. : +- 11.0

LOW IDLE

450 Rated speed rpm 5.50 rack travel mm : +- 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 15.0 Tolerance 2.0 cm3/1000 strokes Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.03.96 Test oil : ISO 4113

Combination No. : 0 402 076 792

Injection pump

Pump designation : PES6P12DA72DRS3367 EP type number : 0 412 026 788

Governor

Governer design. : RSV400...1100P2A599

: -7

Governer no. : 0 421 833 527

Cust. part No. : RE66244

Customer-spec. information
Customer : DEERE
Motor : 6081AF001
Power KW : 168.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0
Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check

tolerance mm

Rack travel in mm : 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.10

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 6.75 Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

	4400	·
Rated speed rpm	: 1100	Tolerance cm3/1000 strokes : +- 1.0
	+	Check tolerance
Rack travel in mm		cm3/1000s. : +- 3.0
Tolerance mm	: + 0.05	Spreed Tolerance
Del. quantity		cm3/1000 strokes : 4.0
cm3/1000 strokes	: 151.0	Check tolerance
Tolerance	<u> </u>	cm3/1000s. : 6.5
cm3/1000 strokes	: + 1.0	
a l		
Check tolerance cm3/1000S.	: +- 3.0	CONTROL LEVER
		control lever
Spreed	+	position degree : 95.0
Tolerance	. , ,	tolerance degree : +- 4.0
cm3/1000 strokes	: 4.0	RATED SPEED
Check tolerance		
cm3/1000s.	: 6.5	rack travel mm : 11.10
المائية المائية المائية المائية المائية المائية المائية المائية المائية المائية المائية المائية المائية المائية	+	Rated speed rpm : 1160
Del. quantity cm3/1000 strokes	: 30.5	Tolerance 1/min : +- 5
Tolerance	. 50.5	rack travel mm : 4.00
cm3/1000 strokes	: + 2.0 +	Rated speed rpm : 1210
Check tolerance	+	Tolerance 1/min : + 5
cm3/1000s.	: +- 4.5	0.05
Spreed Tolerance	<u>†</u>	rack travel mm : 0.85 Tolerance mm : +- 0.55
cm3/1000 strokes	: 6.0	Rated speed rpm : 1350
Check tolerance	+	, ,
cm3/1000s.	: 8.0	rack travel mm : 4.00
	†	Rated speed rpm : 1210
(B) SETTING OF IN.	JECTION PUMP	
WITH GOVERNOR	1	
	•	
	+	LOW IDLE
		LOW IDLE
GUIDE SLEEVE POSIT	TION +	control lever
GUIDE SLEEVE POSIT	+	control lever position degree : 69.0
	+	control lever
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm	: 800 : 0.50	control lever position degree : 69.0
GUIDE SLEEVE POSIT	: 800 : 0.50	control lever position degree : 69.0 tolerance degree : +- 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm	: 800 : 0.50	control lever position degree : 69.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring	: 800 : 0.50	control lever position degree : 69.0 tolerance degree : +- 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension	: 800 : 0.50 : +- 0.20	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring	: 800 : 0.50 : +- 0.20	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing:
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x	: 800 : 0.50 : + 0.20 : 3.00	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x	: 800 : 0.50 : +- 0.20	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x FULL LOAD DELIVERY	: 800 : 0.50 : + 0.20 : 3.00	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x FULL LOAD DELIVERY	: 800 : 0.50 : + 0.20 : 3.00	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	: 800 : 0.50 : + 0.20 : 3.00	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSIT Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x FULL LOAD DELIVERY Rated speed rpm Aneroid pressure	: 800 : 0.50 : + 0.20 : 3.00 (AT FULL LOAD STOP : 1100 : 1200	control lever position degree : 69.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 12.10 Tolerance mm : +- 0.05

Rated speed rpm : 700 rack travel mm : 13.00 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : 1200

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 9.50
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 760 rack travel mm : 12.00 Tolerance mm : + 0.20

Pressure hPa : 350 rack travel mm : 10.30 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200 Rated speed rpm : 700

Del. quantity

cm3/1000 strokes : 172.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 94.5

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 11.10
Rated speed rpm : 1160
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : +- 20.0

Check tolerance

cm3/1000s. : +- 25.0

LOW IDLE

Del. quantity cm3/1000 strokes : 30.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance : +-4.5 cm3/1000s. Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.03.96 Test oil : ISO 4113

Combination No. : 0 402 076 793

Injection pump

Pump designation : PES6P120A720RS3367 EP type number : 0 412 026 788

Governor

Governer design. : RSV400...1100P2A599

: -8

Governer no. : 0 421 833 528

Cust. part No. : RE66243

Customer—spec. information
Customer : DEERE
Motor : 6081AF001
Power KW : 168.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 6.75 Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1100	Tolerance cm3/1000 strokes : +- 1.0
Rack travel in mm: 12.10 Tolerance mm: +- 0.05	Check tolerance cm3/1000S. : +- 3.0 Spreed Tolerance
Del. quantity cm3/1000 strokes : 151.0	cm3/1000 strokes : 4.0 Check tolerance
Tolerance cm3/1000 strokes : +- 1.0	cm3/1000s. : 6.5
Check tolerance cm3/1000s. : +- 3.0	CONTROL LEVER
Spreed Tolerance cm3/1000 strokes : 4.0	control lever position degree : 95.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 6.5	RATED SPEED rack travel mm : 11.10 Rated speed rpm : 1160
Del. quantity cm3/1000 strokes : 30.5 Tolerance	Tolerance 1/min : + 5 rack travel mm : 4.00
cm3/1000 strokes : +- 2.0 +- Check tolerance cm3/1000s. : +- 4.5 +- 4.5	Rated speed rpm : 1210 Tolerance 1/min : +- 5
Spreed Tolerance cm3/1000 strokes : 6.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1350
Check tolerance cm3/1000s. : 8.0	rack travel mm : 4.00 Rated speed rpm : 1210
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
	LOW IDLE
GUIDE SLEEVE POSITION + Rated speed rpm : 800 +	<pre>control lever position degree : 69.0 tolerance degree : +- 4.0</pre>
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Setting point w/out bumper spring
governor spring pre-tension	Rated speed rpm : 400 rack travel mm : 5.10
click setting x : 3.00	Testing: Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.60 Tolerance mm : + 0.10
Rated speed rpm : 1100 Aneroid pressure hPa : 1200	Rated speed rpm : 100
Del. quantity cm3/1000 strokes : 151.0	CRT mm min. :> 19.00

TORQUE CONTROL

Rated speed rpm 1100 12.10 rack travel mm Tolerance mm : +- 0.05

700 Rated speed rpm 13.00 rack travel mm : +- 0.10 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1200

MEASUREMENT

Pressure hPa Rated speed rpm 500 9.50 rack travel mm Tolerance mm : + - 0.10

500 Rated speed rpm

Pressure hPa 760 12.00 rack travel mm : **←** 0.20 Tolerance mm

Pressure hPa 350 10.30 rack travel mm : +- 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 hPa Rated speed rpm 700

Del. quantity cm3/1000 strokes : 172.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

Aneroid pressure

hPa 500 Rated speed rpm

Del. quantity 94.5 cm3/1000 strokes :

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. : +-4.0

BREAKAWAY

Rack travel in mm: 11.10 Rated speed rpm : 1160 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.50 Tolerance mm : +- 0.50 Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : **←** 25.0

LOW IDLE

Del. quantity 30.5 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +--4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance 8.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.03.96 Test oil : ISO 4113

Combination No. : 0 402 076 800

Injection pump

Pump designation : PES6P12DA72DRS3367 EP type number : 0 412 026 788

Governor

Governer design. : RSV450...1100P2A640 Governer no. : 0 421 833 552

Cust. part No. : RE66248

Customer-spec. information
Customer : DEERE
Motor : 6081HDW04
Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 7.50 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1100

	+	Check tolerance
Rack travel in mm Tolerance mm	: 11.80 : + 0.05	cm3/1000s. : 6.5
Del. quantity cm3/1000 strokes	: 147.0	CONTROL LEVER
Tolerance cm3/1000 strokes	: + 1.0	position degree : 96.0 tolerance degree : +- 4.0
Check tolerance cm3/1000S.	: + 3.0	RATED SPEED rack travel mm : 10.80
Spreed Tolerance cm3/1000 strokes	: 4.0	Rated speed rpm : 1160 Tolerance 1/min : + 5 rack travel mm : 4.00
Check tolerance cm3/1000s.	: 6.5	Rated speed rpm : 1220 Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	+	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1350
Check tolerance cm3/1000s. Spreed Tolerance	: +- 4.5	rack travel mm : 4.00 Rated speed rpm : 1220
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0 ; 8.0	LOW IDLE
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	control lever position degree : 73.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSIT	FION	Setting point w/out bumper spring Rated speed rpm : 450 rack travel mm : 4.90
governor spring pre-tension click setting x	: 4.50	Testing:
FULL LOAD DELIVERY	AT FULL LOAD STOP	Rated speed rpm : 450 rack travel mm : 5.40 Tolerance mm : +- 0.10
Rated speed rpm Aneroid pressure	: 1100	Rated speed rpm : 100
hPa Del. quantity	: 1300	CRT mm min. : > 19.00
cm3/1000 strokes Tolerance	+	TORQUE CONTROL
cm3/1000 strokes Check tolerance	+	Rated speed rpm : 1100
cm3/1000s. Spreed Tolerance	: + 3.0	rack travel mm : 11.80 Tolerance mm : +- 0.05
cm3/1000 strokes	: 4.0	Rated speed rpm : 700

Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : 1300
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	; 500
Pressure hPa rack travel mm Tolerance mm	: 1000 : 12.90 : + 0.20
roter drice man	: ← 0.20
Pressure hPa rack travel mm	: + 0.20 : 720 : 11.30 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: 720 : 11.30 : +- 0.05
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm	: 720 : 11.30 : +- 0.05
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CH. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 720 : 11.30 : +- 0.05 ARACTERISTICS : 1300
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 720 : 11.30 : +- 0.05 ARACTERISTICS : 1300 : 700
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 720 : 11.30 : +- 0.05 ARACTERISTICS : 1300 : 700 : 193.5
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa	: 720 : 11.30 : +- 0.05 ARACTERISTICS : 1300 : 700 : 193.5 : +- 2.0 : +- 4.0
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000s.	: 720 : 11.30 : +- 0.05 ARACTERISTICS : 1300 : 700 : 193.5 : +- 2.0 : +- 4.0 :
Pressure hPa rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Rated speed rpm	: 720 : 11.30 : +- 0.05 ARACTERISTICS : 1300 : 700 : 193.5 : +- 2.0 : +- 4.0 : 500 : 123.0

Rated speed rpm : 1160 Tolerance 1/min : +- 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : +- 0.50 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : **←** 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 28.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0

End of test specification sheet

8.0

Check tolerance cm3/1000s.

Rack travel in mm : 10.80

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.03.96 Test oil : ISO 4113

Combination No. : 0 402 736 847

Injection pump

Pump designation : PES6P12OA12ORS7287 EP type number : 0 412 726 896

Governor

Governer design. : RQV400...1250PA964

: -22K

Governer no. : 0 421 815 366

Cust. part No. : 3921923

Customer-spec. information
Customer : CDC
Motor : 6BTA-A
Power KW : 156.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 6.00 Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 14.35 Tolerance mm : +- 0.05

Del. quantity	+
cm3/1000 strokes : 177.5	rack travel mm : 13.10 Rated speed rpm : 1315
Tolerance cm3/1000 strokes : +- 1.0	Tolerance 1/min : +- 15 rack travel mm : 4.00
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1480 Tolerance 1/min : + 5
Spreed Tolerance cm3/1000 strokes : 8.0	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1600
Check tolerance cm3/1000s. : 12.0	101 701 7
Del. quantity - cm3/1000 strokes : 15.0	+ LOW IDLE
Tolerance cm3/1000 strokes : +- 3.0	control lever position degree : 74.0
Check tolerance : +- 5.0	tolerance degree : +- 6.0
Spreed - Tolerance -	Testing:
cm3/1000 strokes : 4.0 - Check tolerance -	Rated speed rpm : 420 rack travel mm : 5.80
cm3/1000s. : 8.0 -	Tolerance mm : + 0.20 Rated speed rpm : 300
(B) SETTING OF INJECTION PUMP	CRT mm min. :> 8.80
WITH GOVERNOR	Rated speed rpm : 420
FULL LOAD DELIVERY AT FULL LOAD STOP	
Rated speed rpm : 1150 -	TORQUE CONTROL
Aneroid pressure hPa : 1200	Rated speed rpm : 1150 rack travel mm : 14.35
Del. quantity cm3/1000 strokes : 177.5	Tolerance mm : + 0.05
Tolerance - cm3/1000 strokes : +- 1.0	Rated speed rpm : 800 rack travel mm : 12.60
Check tolerance cm3/1000s. : +- 4.0	Tolerance mm : +- 0.20
Spreed	Rated speed rpm : 1250 rack travel mm : 14.20
Tolerance - cm3/1000 strokes : 8.0 - Check tolerance -	rack travel mm : 14.20 Tolerance mm : +- 0.10
cm3/1000s. : 12.0	- ANEROID/ALTITUDE
	- COMPENSATOR TEST
CONTROL LEVER	- SETTING
control lever position degree : 120.0 tolerance degree : +- 6.0	- Rated speed rpm : 1150 - Pressure hPa : 1200
RATED SPEED	- MEASUREMENT

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 1150 : 10.40 : +- 0.20
Rated speed rpm	: 1150
Pressure hPa rack travel mm Tolerance mm	: 685 : 13.30 : + 0.30
Pressure hPa rack travel mm Tolerance mm	: 425 : 11.50 : + 0.20
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 315
Check speed 1/min	; > 80
Check speed 1/min	: < 325
hPa Rated speed rom	: 1200 : 800
Aneroid pressure hPa Rated speed rom	
Del. quantity cm3/1000 strokes	: 149.5
Tolerance cm3/1000 strokes Check tolerance	: + 3.0
cm3/1000s. Spreed	: +- 6.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
Aneroid pressure hPa	: -
Rated speed rpm Del. quantity	: 1150
cm3/1000 strokes Tolerance	: 96.5
cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 3.0

Rated speed rpm : 1315
Tolerance 1/min : + 15 STARTING FUEL DELIVERY Rated speed rpm 12.50 rack travel mm : + 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : + 20.0Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 : +-Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0

End of test specification sheet

Rack travel in mm: 13.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.03.96 Test oil : ISO 4113

Combination No. : 0 402 736 848

Injection pump

Pump designation : PES6P12OA12ORS7314 EP type number : 0 412 726 901

Governor

Governer design. : RQV400...1250PA964

: -23K

Governer no. : 0 421 815 374

Cust. part No. : 3921922

Customer—spec. information Customer : CDC Motor : 6BTA-A Power KW : 142.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : +- 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 12.50
Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.75

Start of delivery blocking

"NW after s.o.d.: 5.75 Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 14.35
Tolerance mm : + 0.05

		•
Del. quantity cm3/1000 strokes	, 140 5	+ rack travel mm : 13.00
CHOTTUDO SCITORES	: (09.3	Rated speed rpm : 1310
Tolerance		+ Tolerance 1/min : +- 15
cm3/1000 strokes	: + 1.0	+
		+ rack travel mm : 4.00
Check tolerance		Rated speed rpm : 1475
cm3/1000s.	: +- 4.0	+ Tolerance 1/min : + 5
Connand		T pack though mm . 0.50
Spreed Tolerance		+ rack travel mm : 0.50 + Tolerance mm : + 0.50
cm3/1000 strokes	• 8.0	Rated speed rpm : 1550
	. 3.3	Traced opeca i piii . 1335
Check tolerance		4
cm3/1000s.	: 12.0	+
		+ LOW IDLE
Del. quantity	47.6	†
cm3/1000 strokes	: 13.0	† control lover
Tolerance cm3/1000 strokes	• + 3 0	+ control lever + position degree : 72.0
Check tolerance		tolerance degree : + 6.0
cm3/1000s.	: ← 5.0	+ cotto acignet in the cotto
Spreed		+ Testing:
Tolerance		+
cm3/1000 strokes		+ Rated speed rpm : 420
Check tolerance cm3/1000s.		rack travel mm : 6.10 Tolerance mm : + 0.20
cm3/10008.	: 8.0	Tolerance mm : +- 0.20
		Rated speed rpm : 300
(B) SETTING OF IN	NJECTION PUMP	- Marca opeca opini
WITH GOVERNOR		+ CRT mm min. :> 8.90
		+
		+ Rated speed rpm : 420
EUL LOAD DELTVED	RY AT FULL LOAD STOP	†
FULL LUMD DELIVER	IT AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm	: 1150	T TONGOL CONTROL
Aneroid pressure		Rated speed rpm : 1150
hPa	: 1200	+ rack travel mm : 14.35
Del. quantity		+ Tolerance mm : + 0.05
cm3/1000 strokes	: 169.5	+
Tolerance	4.0	+ Rated speed rpm : 800
cm3/1000 strokes Check tolerance	: + 1.0	rack travel mm : 12.90 Tolerance mm : + 0.20
cm3/1000s.	: +- 4.0	T roce drice dill U.20
Spreed		Rated speed rpm : 1250
Tolerance		+ rack travel mm : 14.10
cm3/1000 strokes	: 8.0	rack travel mm : 14.10 Tolerance mm : + 0.10
Check tolerance		+
cm3/1000s.	: 12.0	ANGROTO (AL TITURE
		ANEROID/ALTITUDE
		† COMPENSATOR TEST
CONTROL LEVER		1
		+ SETTING
control lever		+
position degree		+ Rated speed rpm : 1150
tolerance degree	: ← 6.0	+ Pressure hPa : 1200
DATEN COCEN		MEASUDEMENT
RATED SPEED		+ MEASUREMENT

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1150 : 11.50 : +- 0.20
Rated speed rpm	: 1150
Pressure hPa rack travel mm Tolerance mm	: 500 : 13.50 : +- 0.30
Pressure hPa rack travel mm Tolerance mm	: 375 : 12.30 : +- 0.20
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 315
Check speed 1/min Check	: > 80
speed 1/min	: < 325
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1200 : 800 : 141.0
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 4.0

Rated speed rpm : 1310
Tolerance 1/min : +- 15 STARTING FUEL DELIVERY Rated speed rpm 100 14.00 rack travel mm : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : + 20.0Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0

5.0

4.0

8.0

: +--

End of test specification sheet

Check tolerance cm3/1000s.

Check tolerance

cm3/1000s.

cm3/1000 strokes :

Spreed Tolerance

Rack travel in mm :

13.00

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.03.96 Test oil : ISO 4113

Combination No. : 0 402 736 905

Injection pump

Pump designation : PES6P12OA12ORS7416 EP type number : 0 412 726 959

Governor

Governer design. : RQV400...1250PA1060

: -3K

Governer no. : 0 421 815 513

Cust. part No. : 3928145

Customer-spec. information : CDC Customer : 6BTA-A Motor Power KW : 119.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance *C 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar

Test lines : 1 680 750 015 Outside diameter :

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm 3.60 : +- 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: +- 0.30 Tolerance

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 6.25 : + 0.50 Tolerance

Check

tolerance °NW : +- 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 13.35

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 153.5	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes	: +- 1.0	Rated speed rpm : 1250 Aneroid pressure
Check tolerance cm3/1000S.	: +- 4.0	hPa : 1200 Del. quantity cm3/1000 strokes : 153.5
Spreed Tolerance cm3/1000 strokes	: 8.0	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0
Check tolerance cm3/1000s.	: 12.0	Spreed Tolerance cm3/1000 strokes: 8.0
Del. quantity cm3/1000 strokes Tolerance	: 15.5	Check tolerance cm3/1000s. : 12.0
cm3/1000 strokes Check tolerance		CONTROL LEVED
cm3/1000S. Spreed Tolerance	: +- 5.0	CONTROL LEVER control lever
cm3/1000 strokes Check tolerance		position degree : 117.0 tolerance degree : +- 4.0
cm3/1000s.	: 8.0	RATED SPEED
(B) SETTING OF IN	NJECTION PUMP	+ rack travel mm : 12.30 + Rated speed rpm : 1325 + Tolerance 1/min : + 15
GUIDE SLEEVE TRAN	/EL	rack travel mm : 4.00
Rated speed rpm guide sleeve		Rated speed rpm : 1475 Tolerance 1/min : + 15
travel mm Tolerance mm	: 1.44 : +- 0.20	+ rack travel mm : 0.50 + Tolerance mm : +- 0.50 + Rated speed rpm : 1550
Rated speed rpm guide sleeve	: 1329 : 7.83	
travel mm Tolerance mm	: +- 0.15	LOW IDLE
Rated speed rpm quide sleeve travel mm	: 939 : 5.18	t control lever t position degree : 71.0
Tolerance mm	: +- 0.25	tolerance degree : +- 4.0
Rated speed rpm guide sleeve travel mm	: 640 : 3.56	Testing: Rated speed rpm : 420
Tolerance mm	: +- 0.25	rack travel mm : 6.00 Tolerance mm : + 0.20
Rated speed rpm guide sleeve travel mm	: 1690 : 11.50	Rated speed rpm : 400
Tolerance mm	: +- 0.50	CRT mm min. :> 5.80

Rated speed rpm	: 425	<u> </u>
TORQUE CONTROL		
Rated speed rom	: 1250	Aneroid pressure
rack travel mm Tolerance mm	: 13.35 : +- 0.05	hPa : 1200 Rated speed rpm : 800 Del. quantity
Rated speed rpm	: 800	cm3/1000 strokes : 133.0 Tolerance
rack travel mm Tolerance mm	: +- 0.20	- cm3/1000 strokes : +- 3.0 - Check tolerance - cm3/1000S. : +- 6.0
Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.60	Spreed Tolerance
Tolerance mm	: + 0.20	cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm rack travel mm	: 12.40	+ cm3/1000s. : 12.0
Tolerance mm	: +- 0.20	+ Aneroid pressure + hPa : -
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 1250 Del. quantity cm3/1000 strokes : 106.0 Tolerance
SETTING		cm3/1000 strokes : + 1.0 Check tolerance
Rated speed rpm Pressure hPa	: 1250	+ cm3/1000s. : + 3.0
MEASUREMENT	: 1200	BREAKAWAY
Pressure hPa Rated speed rpm	: -	Rack travel in mm : 12.30 Rated speed rpm : 1325
rack travel mm Tolerance mm	: 10.40 : + 0.20	Tolerance 1/min : + 15
Rated speed rpm	: 1250	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 350 : 12.70 : ← 0.30	Rated speed rpm : 100 + rack travel mm : 13.50
Pressure hPa	: 265	Tolerance mm : +- 0.50 Del. quantity
rack travel mm Tolerance mm	: 11.80 : +- 0.20	cm3/1000 strokes : 155.0 Tolerance
		cm3/1000 strokes : +- 20.0 Check tolerance
START CUT-OUT	. \ 100	- cm3/1000s. : +- 25.0
Rated speed rpm Rated speed rpm		Ī
Check speed 1/min	: > 80	LOW IDLE
Check speed 1/min	: < 290	Del. quantity cm3/1000 strokes : 15.5 Tolerance
		+ cm3/1000 strokes : +- 3.0

Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14,03,96 Edition Test oil : ISO 4113

Combination No. : 9 400 030 736

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. :

Governer no. : 9 420 034 715

Cust. part No. : 3929769

Customer-spec. information Customer : CDC Motor : 6BT Power KW : 88.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Start of delivery blocking

°NW after s.o.d. : 7.50 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 9.35 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 75.0 Tolerance	Check tolerance cm3/1000s. : 6.5
cm3/1000 strokes : + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 3.0	control lever position degree : 102.5
Spreed Tolerance cm3/1000 strokes : 4.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 8.30 Rated speed rpm : 1260 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 18.5 Tolerance	rack travel mm : 4.30 Rated speed rpm : 1315
cm3/1000 strokes : +- 2.0 +- Check tolerance +-	Tolerance 1/min : +- 5
cm3/1000s. : +- 4.5 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1400
cm3/1000 strokes : 6.0 + Check tolerance + cm3/1000s. : 8.0 +	rack travel mm : 4.30 Rated speed rpm : 1325
(B) SETTING OF INJECTION PUMP	nated speed (pill . 1929
(8) 02:12:14 0: 2:1020:20:1	
WITH GOVERNOR +	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 88.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	control lever position degree : 88.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	<pre>control lever position degree : 88.0 tolerance degree : +- 4.0</pre>
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 88.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	control lever position degree : 88.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200	control lever position degree : 88.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : -	control lever position degree : 88.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 75.0 Tolerance	control lever position degree : 88.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 75.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 88.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1200
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 75.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 88.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 425 rack travel mm : 4.60 Testing: Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00

BREAKAWAY

Rack travel in mm : 8.30 Rated speed rpm : 1260 Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : +- 0.50 Del. quantity

cm3/1000 strokes : 120.5 Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance cm3/1000s. : + 15.0

LOW IDLE

Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 678 830

Injection pump

Pump designation : PE8P12CA520/5RS7386 EP type number : 0 412 628 910

Governor

Governer design. : RSUV325...1150P0A365

Governer no. : 0 421 829 113

Cust. part No. : 12277649KY0120-17

Customer-spec. information

Customer : MWM

: TBD 616 V16 Motor

Power KW : 864.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 40 : +-2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.65 Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 13.00 Tolerance mm : \leftarrow 0.10

: 1-2-7-8-3-4-Firing order : 5- 6

Phasing : 0-30-45-75-90-120

: -315-345

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 12.60 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 262.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 4.0	+ rack travel mm : 4.00 + Rated speed rpm : 1285 +
Spreed Tolerance cm3/1000 strokes : 6.0	LOW IDLE
Check tolerance cm3/1000S. : 9.0	Setting point w/out bumper spring
Rated speed rpm : 300	+ Rated speed rpm : 300 + rack travel mm : 5.90
Rack travel in mm : 6.40 Tolerance mm : +- 0.20	Testing:
Del. quantity cm3/1000 strokes : 38.0 Tolerance	+ Rated speed rpm : 300 + rack travel mm : 6.40 + Tolerance mm : +- 0.10
cm3/1000 strokes : + 3.0 Check tolerance	- Total and anni
cm3/1000S. : +- 6.0 Spreed	TORQUE CONTROL
Tolerance cm3/1000 strokes : 8.0 Check tolerance	+ Rated speed rpm : 1150 - rack travel mm : 12.60 - Tolerance mm : + 0.05
cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	ANEROID/ALTITUDE COMPENSATOR TEST
	1
Rated speed rpm : 1150	SETTING
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 600 Pressure hPa : 1800 rack travel mm : 12.60 Tolerance mm : + 0.05
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	Rated speed rpm : 600 Pressure hPa : 1800 rack travel mm : 12.60 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : - Rated speed rpm : 600
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance	Rated speed rpm : 600 Pressure hPa : 1800 rack travel mm : 12.60 Tolerance mm : + 0.05 MEASUREMENT
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0	Rated speed rpm : 600 Pressure hPa : 1800 rack travel mm : 12.60 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : - Rated speed rpm : 600
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0 RATED SPEED	Rated speed rpm : 600 Pressure hPa : 1800 rack travel mm : 12.60 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : - Rated speed rpm : 600 rack travel mm : 8.50 Tolerance mm : + 0.20 Rated speed rpm : 600 Rated speed rpm : 600 Pressure hPa : 1600
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 262.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0	Rated speed rpm : 600 Pressure hPa : 1800 rack travel mm : 12.60 Tolerance mm : + 0.05 MEASUREMENT Pressure hPa : - Rated speed rpm : 600 rack travel mm : 8.50 Tolerance mm : + 0.20 Rated speed rpm : 600 Rated speed rpm : 600

FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa Rated speed rpm 800 Del. quantity cm3/1000 strokes : 261.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance 12.0 cm3/1000s. Aneroid pressure Rated speed rpm 500 Del. quantity cm3/1000 strokes : 131.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance 6.0 cm3/1000 strokes : Check tolerance 12.0 cm3/1000s. **BREAKAWAY** 11.60 Rack travel in mm : Rated speed rpm Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 : > 19.50 rack travel mm

300 6.40

0.20

38.0

Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	• +-	6.0
	• '	0.0
Spreed		
Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance	-	
cm3/1000s.		12.0
CHO/TOUUS.	i	12.0

End of test specification sheet

LOW IDLE

Rated speed rpm

rack travel mm Tolerance mm

Del. quantity

cm3/1000 strokes :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.03.96 Test oil : ISO 4113

Combination No. : 0 402 746 650

Injection pump

Pump designation : PES6P120A320RS7344

EP type number : 0 412 726 914

Governor

Governer design. : RQ275/1050PA999-6 Governer no. : 0 421 801 785

Cust. part No. : CCEP 5151A 66-230

Customer-spec. information

: RVI Customer

: MIDR 062045 M41 Motor

: 250.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C : +- 2.0 Tolerance *C

Overflow valve : 2 417 413 071

Inlet press. bar : 2.5

Overflow quantity

min. l/h : 145 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

: 4.50 Prestroke mm Tolerance mm

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 11.00 Tolerance mm : +- 0.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.30

Check

tolerance °NW : ← 0.50

Start of delivery mark

 $^{\circ}$ NW after s.o.d. : -0.15Tolerance : + - 0.50

Check

tolerance *NW : +- 0.75

: 1 Barrel no.

Beginning of delivery differende

betw. rack trav.

21.00

and maximum rack

travel 11.00 travel : 11.00 Difference ° CS : 2.25

		+ guide sleeve
BASIC SETTING		travel mm : 6.00 Tolerance mm : +- 0.10
Rated speed rpm	: 600	Rated speed rpm : 416 guide sleeve
Rack travel in m Tolerance mm		travel mm : 3.44 Tolerance mm : + 0.10
Del. quantity cm3/1000 strokes	: 288.0	Rated speed rpm : 560 guide sleeve travel mm : 6.00
Tolerance cm3/1000 strokes	: + 1.0	Tolerance mm : +- 0.10 Rated speed rpm : 1350
Check tolerance cm3/1000s.	: + 4.0	travel mm : 11.50 Tolerance mm : + 0.50
Spreed Tolerance		GUIDE SLEEVE POSITION
cm3/1000 strokes	: 5.0	Rated speed rpm : 600
Check tolerance cm3/1000s.	: 9.0	+ Rack travel in mm : 20.00 + Tolerance mm : + 0.80
Rated speed rpm	: 275	<u> </u>
Rack travel in ma Tolerance mm		FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes Tolerance	: 37.0	Rated speed rpm : 600 Aneroid pressure hPa : 1000
cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0 : + 5.0	Del. quantity cm3/1000 strokes : 288.0 Tolerance
Spreed Tolerance		cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes Check tolerance cm3/1000s.	: 8.0 : 12.0	+ cm3/1000s. : +- 4.0 + Spreed + Tolerance
		cm3/1000 strokes : 5.0 Check tolerance
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	cm3/1000s. : 9.0
GUIDE SLEEVE TRAN	/EL	CONTROL LEVER
Rated speed rpm guide sleeve		control lever position degree : 274.0
travel mm Tolerance mm	: 0.80 : +- 0.10	tolerance degree : + 4.0 RATED SPEED
Rated speed rpm guide sleeve		+ rack travel mm : -1.00
travel mm Tolerance mm	: 6.37 : + 0.10	+ Rated speed rpm : 1135 + Tolerance 1/min : +- 5
Rated speed rpm	: 1050	rack travel mm : -7.60

Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: +- 15
LOW IDLE	
control lever position degree tolerance degree	: 251.0 : +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : -7.00 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 365
Rated speed rpm	: 200
CRT mm min.	: < -5.80
TORQUE CONTROL	
Rated speed rpm	: 600
Rated speed rpm Tolerance mm	: 1050 : +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : 1000
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm	: 500
Tolerance mm	: -3.65 : +- 0.30

Pressure hPa rack travel mm Yolerance mm	: 320 : -2.75 : +- 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 225
Check speed 1/min Check	: > 80
speed 1/min	: < 245
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 1000 : 1050
Del. quantity cm3/1000 strokes	
Tolerance cm3/1000 strokes	: +- 3.0
Check tolerance cm3/1000s.	: +- 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: - : 500 : 114.0 : +- 1.0
cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1135
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	

LOW IDLE

Tolerance mm	: +-	275 -7.00 0.20	
Del. quantity cm3/1000 strokes		37.0	
Tolerance cm3/1000 strokes		2.0	
Check tolerance	,	2.0	
cm3/1000s.	: +-	5.0	
Spreed Tolerance			
cm3/1000 strokes	:	8.0	
Check tolerance cm3/1000s.	:	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.03.96 Test oil : ISO 4113

Combination No. : 0 403 246 046

Injection pump

Pump designation : PES6MW100/720RS1522

EP type number : 0 413 206 023

Governor

Governer design. : RQV300...1300MW148

: -3

Governer no. : 0 420 083 324

Cust. part No. : 0250744702

Customer—spec. information Customer : MB-NFZ Motor : OM366LA Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 21.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 14.50 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 133.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

		Tolerance mm : + 0.50
Check tolerance	•	+
cm3/1000s.	: 8.0 -	
	-	GUIDE SLEEVE POSITION
Rated speed rpm	: 300 -	
	•	Rated speed rpm : 1500
Rack travel in m	n: 4.50 -	+
Tolerance mm	: +- 0.20	Rack travel in mm : 10.00
Del. quantity	•	Tolerance mm : + 2.70
cm3/1000 strokes	: 12.0 -	
Tolerance		
cm3/1000 strokes	: +- 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	_	
cm3/1000S.	: +- 4.5 -	Rated speed rpm : 1300
Spreed	• • • • • • • • • • • • • • • • • • • •	Aneroid pressure
Tolerance	<u>.</u>	hPa : 1200
cm3/1000 strokes	: 2.0	Del. quantity
Check tolerance	. 2.0	cm3/1000 strokes : 133.0
cm3/1000S.	: 4.0	Tolerance
CIIID7 (0003.	• 4.0	cm3/1000 strokes : +- 1.0
	7	Check tolerance
(D) CETTING OF TH	ALECTION DUMP	
(B) SETTING OF IN	AZECITON POMP	
WITH GOVERNOR	7	Spreed
	7	Tolerance 5.0
	4	cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAN	/EL -	Check tolerance
	700	cm3/1000s. : 8.0
Rated speed rpm	: 300 -	
guide sleeve		-
travel mm	: 0.92	
Tolerance mm	: ← 0.25	CONTROL LEVER
Rated speed rpm	: 1355	- control lever
guide sleeve		position degree : 120.0
travel mm	: 9.33	- tolerance degree : +- 4.0
Tolerance mm	: +- 0.25	-
	+	- RATED SPEED
Rated speed rpm	: 1078	L
guide sleeve	-	rack travel mm : 13.50
travel mm	: 7.06	- Rated speed rpm : 1345
Tolerance mm	: +- 0.25	Tolerance 1/min : +- 5
	-	-
Rated speed rpm	: 514	rack travel mm : 4.00
guide sleeve	4	- Rated speed rpm : 1495
travel mm	: 2.14	- Tolerance 1/min : +- 15
Tolerance mm	: +- 0.25	
	-	- rack travel mm : 0.50
Rated speed rpm	: 564	- Tolerance mm : + 0.50
guide sleeve		- Rated speed rpm : 1600
travel mm	: 2.60	- Consequent Community Community
Tolerance mm	: +- 0.25	_
. Deci di 100 mm	1	
Rated speed rpm	: 740	- LOW IDLE
guide sleeve	1 1 1 1	
travel mm	: 3.93	_
	+ 0.25	- - control lever
Tolerance mm	(2.0.2)	- controc tever - posit%on degree : 75.0
Datad annual num	: 1720	•
Rated speed rpm	; 1/2U	- tolerance degree : +- 4.0
guide sleeve travel mm	. 13 50	Tooking
TP9V6: 766	: 13.50 	· Testing:

		_
Rated speed rpm	: 300	
rack travel mm		+ FUEL DELIVERY CHARACTERISTICS
Tolerance mm		
		+ Aneroid pressure
Rated speed rpm	: 200	+ hPa : 1200
, , , , , , , , , , , , , , , , , , ,		Rated speed rpm : 750
CRT mm min.	; > 5.50	+ Del. quantity
		+ cm3/1000 strokes : 128.0
		
TORQUE CONTROL		+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
Rated speed rpm	: 1300	+ cm3/1000s. : + 5.0
rack travel mm	: 14.50	+ Spreed
Tolerance mm	: ← 0.05	+ Tolerance
		+ cm3/1000 strokes : 6.0
Rated speed rpm		+ Check tolerance
rack travel mm		+ cm3/1000s. : 9.0
Tolerance mm	: +- 0.10	+
		+ Aneroid pressure
		+ hPa : 1200
ANEROID/ALTITUDE		Rated speed rpm : 1300
COMPENSATOR TEST		+ Del. quantity
		+ cm3/1000 strokes : 105.0
		† Tolerance
SETTING		+ cm3/1000 strokes : + 1.5
		+ Check tolerance
Rated speed rpm	: 500	+ cm3/1000s. : + 3.0
Pressure hPa	: 1200	+
rack travel mm	: 14.50	+ Aneroid pressure
Tolerance mm	: + 0.10	→ hPa : -
		Rated speed rpm : 500
MEASUREMENT		+ Del. quantity
		+ cm3/1000 strokes : 46.0
Pressure hPa		+ Tolerance
Rated speed rpm	: 500	+ cm3/1000 strokes : + 1.0
Tolerance mm	: + 0.05	- Check tolerance
		+ cm3/1000s. : + 3.0
Rated speed rpm	: 500	+
Pressure hPa	: 700	+ BREAKAWAY
rack travel mm	: 4.80	+
Tolerance mm	: +- 0.10	+
		Rack travel in mm: 13.50
Pressure hPa	: 300	Rated speed rpm : 1345
rack travel mm	: 1.70	+ Tolerance 1/min : +- 5
Tolerance mm	: + 0.10	· +
		+
ATANT ALI 617		OTADTING FUEL DELYMENT
START CUT-OUT		+ STARTING FUEL DELIVERY
Dated speed rom	: > 100	T Rated speed rpm : 100
Rated speed rpm Rated speed rpm		+ Del. quantity
waren sheen chill	. \ ~~~	+ cm3/1000 strokes : 750.0
Chack		Tolerance
Check	: > 80	+ cm3/1000 strokes : +- 5.0
speed 1/min	: > 80	+ Check tolerance
Check	: < 220	+ cmeck toterance + cm3/1000s. :+- 8.0
speed 1/min	: < 220	T (1113/1000). : T 0.0
		Ī
		†

LOW IDLE

Rated speed rpm	:	300
rack travel mm	;	4.50
Tolerance mm	: +-	0.20
Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000S.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	2.0
Check tolerance		
cm3/1000S.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.03.96 Test oil : ISO 4113

Combination No. : 0 403 466 175

Injection pump

Pump designation : PES6MW100/120RS1240

EP type number : 0 413 406 239

Governor

Governer design. : RSV400...950MW2A395

Governer no. : 0 420 085 283

Cust. part No. : 3930113

Customer-spec. information
Customer : CDC
Motor : 6 CT-830
Power KW : 160.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.35
Tolerance mm : +- 0.05
Check

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance "NW : + 0.75

Start of delivery blocking

"NW after s.o.d. : 8.00

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 950

Rack travel in mm : 12.40

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 146.0

Tolerance

cm3/1000 strokes : +- 1.0

	+ Check tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000s. : 7.5
Spreed	
Tolerance	+ CONTROL LEVER
cm3/1000 strokes : 4.0	†
Check tolerance	+ control lever + position degree : 93.0
cm3/1000s. : 7.5	tolerance degree : +- 4.0
	+
Rated speed rpm : 400	RATED SPEED
Rack travel in mm: 5.60	T rack travel mm : 11.40
Tolerance mm : +- 0.30	Rated speed rpm : 995
Del. quantity	+ Tolerance 1/min : +- 5
cm3/1000 strokes : 20.0	†
Tolerance	+ rack travel mm : 4.00
cm3/1000 strokes : +- 2.0 Check tolerance	+ Rated speed rpm : 1040 + Tolerance 1/min : +- 15
cm3/1000s. : +- 4.5	Toterance minimates in 13
Spreed	rack travel mm : 0.85
Tolerance	Tolerance mm : +- 0.55
cm3/1000 strokes : 3.5	+ Rated speed rpm : 1200
Check tolerance cm3/1000s. 5.5	t rack travel mm : 4.00
Cm3/ (0003. : 3.3	Rated speed rpm : 1055
	+
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	
	1011 701 7
	LOW IDLE
	+
GUIDE SLEEVE POSITION	control lever
GUIDE SLEEVE POSITION	control lever position degree : 68.0
	control lever
GUIDE SLEEVE POSITION	control lever position degree : 68.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : +- 0.30
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : +- 0.30 rack travel mm : 2.00
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : +- 0.30 rack travel mm : 2.00 Rated speed rpm : 480
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.30 rack travel mm : 2.00 Rated speed rpm : 480 Tolerance 1/min : + 30
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 68.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : +- 0.30 rack travel mm : 2.00 Rated speed rpm : 480
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.30 rack travel mm : 2.00 Rated speed rpm : 480 Tolerance 1/min : + 30 TORQUE CONTROL
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : 5.60 Tolerance mm : 400 Rated speed rpm : 480 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 950 rack travel mm : 950 rack travel mm : 12.40
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.30 rack travel mm : 2.00 Rated speed rpm : 480 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 950
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	control lever position degree : 68.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : 5.60 Tolerance mm : 400 Rated speed rpm : 480 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 950 rack travel mm : 950 rack travel mm : 12.40

rack travel mm Tolerance mm	: 12.40 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 12.40 : + 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.00 : +- 0.05
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 750 : 11.90 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 600 : 11.30 : +- 0.10
rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 11.30 : + 0.10 RACTERISTICS : 1200 : 750 : 150.0 : + 2.0 : + 5.0 : 6.0
rack travel mm Tolerance mm FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 11.30 : + 0.10 RACTERISTICS : 1200 : 750 : 150.0 : + 2.0 : + 5.0

Check tolerance cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 995
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 400 : 5.60 : + 0.30
cm3/1000 strokes Tolerance	: 20.0
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed Tolerance	: +- 4.5
cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 5.5
End of test specif	fication sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.03.96 Test oil : ISO 4113

Combination No. : 9 400 085 385

Injection pump

Pump designation : PES6A95D410RS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1306L Governer no. : 9 420 080 384

Cust. part No. : 0260745502

Customer-spec. information
Customer : MBB
Motor : OM 366 A
Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.65Tolerance mm : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 81.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

8.0

•	
	Spreed
Del. quantity + cm3/1000 strokes : 10.0 +	Tolerance cm3/1000 strokes : 3.5
Tolerance + cm3/1000 strokes : + 2.0 +	Check tolerance cm3/1000s. : 8.0
Check tolerance cm3/1000s. : +- 4.5	
Spreed + Tolerance	CONTROL LEVER
cm3/1000 strokes : 5.5 + Check tolerance	control lever
cm3/1000s. : 9.0	position degree : 59.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 108.0 tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 300	rack travel mm : 9.60
guide sleeve + travel mm : 1.05 +	Rated speed rpm : 1355 Tolerance 1/min : +- 5
Tolerance mm : + 0.25	
Rated speed rpm : 1500	rack travel mm : 4.00 Rated speed rpm : 1480
Rated speed rpm : 1500 + guide sleeve +	Tolerance 1/min : +- 15
travel mm : 8.55	
Tolerance mm : + 0.05	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 500	Rated speed rpm : 1600
guide sleeve + travel mm : 2.55 +	
Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 750	LOW INCE
guide sleeve +	
travel mm : 4.20 + Tolerance mm : + 0.10 +	control lever position degree : 70.0
	tolerance degree : + 4.0
GUIDE SLEEVE POSITION	control lever
Rated speed rpm : 1500 +	<pre>position degree : 22.0 tolerance degree : +- 4.0</pre>
+	
Rack travel in mm : 16.50 + Tolerance mm : +- 1.30 +	Testing:
Total and a min	Rated speed rpm : 300
FILL LOAD DELTUEDY AT FILL LOAD STOD	rack travel mm : 8.10 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
Rated speed rpm : 1300 +	Rated speed rpm : 100
hPa : 900 +	CRT mm min. : > 9.30
Del. quantity cm3/1000 strokes : 81.0	Rated speed rpm : 375
Tolerance + 1.0 + 1.0	
Check tolerance cm3/1000s. : +- 3.0 +-	TORQUE CONTROL
T	

Rated speed rpm	: 1300	+ Del. quantity
rack travel mm Tolerance mm	10.65	+ cm3/1000 strokes : 79.0
loterance mm	: + 0.05	+ Tolerance + cm3/1000 strokes : +- 2.0
Rated speed rpm	200	+ Check tolerance
rack travel mm	• 11 55	= cm3/1000s. : +- 4.0
Tolerance mm	: + 0.05	1 4.6
		Aneroid pressure
Rated speed rpm	: 800	+ hPa : 900
rack travel mm Tolerance mm	: 800 : 11.35	+ Rated speed rpm : 800
Tolerance mm	: +- 0.05	+ Del. quantity
	4070	+ cm3/1000 strokes : 78.0
Rated speed rpm		+ Tolerance
rack travel mm Tolerance mm		+ cm3/1000 strokes : +- 2.0 + Check tolerance
ioterance imi	. += 0.05	= cm3/1000s. : + 4.0
		+
ANEROID/ALTITUDE		Aneroid pressure
COMPENSATOR TEST		+ hPa : -
		Rated speed rpm : 500
		+ Del. quantity
SETTING		+ cm3/1000 strokes : 50.0
Pated cheed nom	500	Del. quantity cm3/1000 strokes: 78.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 4.0 Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes: 50.0 Tolerance cm3/1000 strokes: + 1.0 Check tolerance cm3/1000s. : + 3.0
Rated speed rpm Pressure hPa	: 500 : 900	Check tolerance
rack travel mm	: 11.55	+ cm3/1000s. : + 3.0
Tolerance mm	: +- 0.05	+
		+
MEASUREMENT		+ BREAKAWAY
D	_	†
Pressure hPa	500	+ Rack travel in mm : 9.60
Rated speed rpm	. 500	Rated speed rpm : 1355
Rated speed rpm	: 500	+ Tolerance 1/min : + 5
		+
Pressure hPa		+
rack travel mm		
Tolerance mm	: +- 0.10	+ STARTING FUEL DELIVERY
Brancina hDa	. 700	Rated speed rpm : 100
Pressure hPa rack travel mm		+ rack travel mm : 13.80
Tolerance mm	: +- 0.05	+ Tolerance mm : + 0.10
		+ Del. quantity
		+ cm3/1000 strokes : 78.0
START CUT-OUT		+ Tolerance
Botod eroad mr-	. > 100	+ cm3/1000 strokes : +- 7.5 + Check tolerance
Rated speed rpm Rated speed rpm	: > 100 : < 250	+ cm3/1000s. : +- 10.0
varen sheen thiii	• > 600	
Check		Ţ
Check speed 1/min		-
speed 1/min Check	: > 80	
speed 1/min	: > 80	LOW IDLE
speed 1/min Check	: > 80	· }
speed 1/min Check speed 1/min	: > 80 : < 260	Del. quantity
speed 1/min Check	: > 80 : < 260	Del. quantity cm3/1000 strokes : 10.0
speed 1/min Check speed 1/min FUEL DELIVERY CHA	: > 80 : < 260	Del. quantity
speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa	: > 80 : < 260 RACTERISTICS : 900	Del. quantity cm3/1000 strokes : 10.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance
speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure	: > 80 : < 260 RACTERISTICS : 900	Del. quantity - cm3/1000 strokes : 10.0 - Tolerance - cm3/1000 strokes : +- 2.0

Spreed

Tolerance cm3/1000 strokes : 5.5

Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22,03,96 Edition Test oil : ISO 4113

Combination No. : 9 400 085 388

Injection pump

Pump designation : PES6A95D41DRS2886 EP type number : 9 400 084 039

Governor

Governer design. : RQV300...1300AB1306L

Governer no. : 9 420 080 384

Cust. part No. : 0260746702

Customer-spec. information

Customer : MBB

: OM 366A EURO I Motor

Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test hozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.00 : +- 0.05 Tolerance mm

Check

: **←** 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.65 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 81.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.

: 8.0

+	Spreed
Del. quantity +	Tolerance
cm3/1000 strokes : 10.0 +	cm3/1000 strokes : 3.5
Tolerance +	Check tolerance
cm3/1000 strokes : + 2.0 + Check tolerance +	cm3/1000s. : 8.0
cm3/1000s, : + 4.5	
Spreed	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 5.5	
Check tolerance	control lever
cm3/1000s. : 9.0	position degree : 59.0
†	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 108.0
+	tolerance degree : +- 4.0
	-
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 300	rack travel mm : 9.60
Rated speed rpm : 300 + guide sleeve +	Rated speed rpm : 1355
travel mm : 1.05	Tolerance 1/min : +- 5
Tolerance mm : +- 0.25	
+	rack travel mm : 4.00
Rated speed rpm : 1500 +	Rated speed rpm : 1480
guide sleeve + travel mm : 8.55 +	Tolerance 1/min : +- 15
travel mm : 8.55 + Tolerance mm : +- 0.05 +	rack travel mm : 0.50
Toterance was	Tolerance mm : +- 0.50
Rated speed rpm : 500	Rated speed rpm : 1600
guide sleeve	
travel mm : 2.55	
Tolerance mm : + 0.25 +	LOW IDLE
Rated speed rpm : 750	FOM INCE
guide sleeve	
travel mm : 4.20	control lever
Tolerance mm : +- 0.10	position degree : 70.0
+	tolerance degree : +- 4.0
CUTOE CLEENE DOCTITON	control lever
GUIDE SLEEVE POSITION	position degree : 22.0
Rated speed rpm : 1500	tolerance degree : +- 4.0
+	
Rack travel in mm: 16.50	Testing:
Tolerance mm : +- 1.30	0-44
	Rated speed rpm : 300 rack travel mm : 8.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 8.10 Tolerance mm : +- 0.10
The composition of the control of th	
Rated speed rpm : 1300	Rated speed rpm : 100
Aneroid pressure +	• • • • • • • • • • • • • • • • • • • •
hPa : 900	CRT mm min. $: > 9.30$
Del. quantity + cm3/1000 strokes : 81.0 +	Rated speed rpm : 375
Tolerance	nated speed (piii . 313
cm3/1000 strokes : + 1.0 +	
Check tolerance cm3/1000s. : +- 3.0 +-	TORQUE CONTROL

Rated speed rpm rack travel mm Tolerance mm	: 10.65	+ Del. quantity + cm3/1000 strokes : 79.0 + Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 700 : 11.55 : +- 0.05	cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm Tolerance mm	: 800 : 11.35	+ Aneroid pressure + hPa : 900 + Rated speed rpm : 800 + Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: 1030	- cm3/1000 strokes : 78.0 - Tolerance - cm3/1000 strokes : +- 2.0
Tolerance mm	: +- 0.05	+ Check tolerance + cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure hPa : - Rated speed rpm : 500
SETTING		+ Del. quantity + cm3/1000 strokes : 50.0
Rated speed rpm Pressure hPa		+ Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance
rack travel mm Tolerance mm	: 11.55 : +- 0.05	cm3/1000s. : + 3.0
MEASUREMENT		BREAKAWAY
Pressure hPa Rated speed rpm	500	Rack travel in mm: 9.60 Rated speed rpm: 1355
Rated speed rpm	: 500	Tolerance 1/min : + 5
Pressure hPa rack travel mm Tolerance mm	: 0.50	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 390 : 1.35 : ← 0.05	Rated speed rpm : 100 rack travel mm : 13.80 Tolerance mm : + 0.10 Del. quantity
START CUT-OUT		+ cm3/1000 strokes : 78.0 + Tolerance + cm3/1000 strokes : +- 7.5
Rated speed rpm Rated speed rpm	: > 100 : < 250	Check tolerance cm3/1000s. : +- 10.0
Check speed 1/min Check	: > 80	
speed 1/min	: < 260	LOW IDLE
FUEL DELIVERY CHA	RACTERISTICS	Del. quantity cm3/1000 strokes : 10.0 Tolerance
Aneroid pressure hPa	: 900	cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm	: 700	cm3/1000s. : +- 4.5

Spreed
Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. :

5.5

9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.03.96 Test oil : ISO 4113

Combination No. : 0 400 876 435

Injection pump

Pump designation : PES6A95D41ORS2864 EP type number : 0 410 896 888

Governor

Governer design. : RSV400...1050A8C2263

: -12L

Governer no. : 0 420 232 636

Cust. part No. : 87 800 971

Customer-spec. information
Customer : NH
Motor : 7.5 L
Power KW : 185.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Frestroke mm : 2.60
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 800

Rack travel in mm : 13.45
Tolerance mm : +- 0.10

Del. quantity cm3/1000 strokes : 144.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

M01

Check tolerance cm3/1000s. : 8.0	+ Rated speed rpm : 1058 + rack travel mm : 11.4	
Rated speed rpm : 650	Rated speed rpm : 1091 Tolerance 1/min : + 5	5
Rack travel in mm : 4.70 Tolerance mm : +- 0.10 Del. quantity	rack travel mm : 4.0	
<pre>cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +- 2.0</pre>	Tolerance mm : + 0.5 Rated speed rpm : 1250	
Check tolerance cm3/1000S. : +- 4.5	Rated speed rpm : 1059 rack travel mm : 11.4	
Spreed Tolerance cm3/1000 strokes : 5.5	+ Rated speed rpm : 1092 + Tolerance 1/min : +- 5	;
Check tolerance cm3/1000S. : 9.0	rack travel mm : 4.0 rack travel mm : 0.8	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance mm : + 0.5 Rated speed rpm : 1250	55
WZ (II GOVE IN OIL	Rated speed rpm : 1060 rack travel mm : 11.4	
GUIDE SLEEVE POSITION governor spring	Rated speed rpm : 1093 Tolerance 1/min : + 5 rack travel mm : 4.0	,
pre-tension click setting x : 3.50	rack travel mm : 0.8 Tolerance mm : + 0.5 Rated speed rpm : 1250	5
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1061	
Rated speed rpm : 800 Aneroid pressure hPa : 1200	rack travel mm : 11.4 Rated speed rpm : 1094	
Del. quantity cm3/7000 strokes : 144.0 Tolerance	Tolerance 1/min : +- 5 rack travel mm : 4.0	
cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed	rack travel mm : 0.8 Tolerance mm : + 0.5 Rated speed rpm : 1250	5
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1062 rack travel mm : 11.4	
Check tolerance cm3/1000s. : 8.0	Rated speed rpm : 1095 Tolerance 1/min : +- 5 rack travel mm : 4.0	
CONTROL LEVER control lever	rack travel mm : 0.8 Tolerance mm : + 0.5 Rated speed rpm : 1250	5
position degree : 96.0 tolerance degree : +- 4.0	Rated speed rpm : 1063 rack travel mm : 11.4	
ASSEMBLY GOVERNOR SETTING	Rated speed rpm : 1096 Tolerance 1/min : + 5	

rack travel mm	: 4.00	+ Tolerance mm : + O.	05
rack travel mm Tolerance mm		Rated speed rpm : 500)
Rated speed rpm	1250	Pressure hPa : 750 - rack travel mm : 12. - Tolerance mm : +- 0.	30
control lever position degree tolerance degree	: 79.0 : +- 4.0	Pressure hPa : 550 rack travel mm : 10. Tolerance mm : +- 0.	00 20
Testing: Rated speed rpm rack travel mm Tolerance mm rack travel mm Rated speed rpm Tolerance 1/min	: + 0.10 : + 0.10 : 2.00 : 740	FUEL DELIVERY CHARACTERIST Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 70 Tolerance cm3/1000 strokes : + 1 Check tolerance	.0
TORQUE CONTROL		cm3/1000s. : +- 3	.0
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 13.45 : + 0.10 : 500 : 13.50 : + 0.10 : 1025 : 11.90 : + 0.05 : 1025 : 12.40	STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 160 Tolerance cm3/1000 strokes : + 8 Check tolerance cm3/1000s. : + 11	.0
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.50	Rated speed rpm : 650 rack travel mm : 4. Tolerance mm : + 0. Del. quantity cm3/1000 strokes : 20 Tolerance cm3/1000 strokes : + 2. Check tolerance	70 10 .0
MEASUREMENT	: +- 0.10	+ cm3/1000s. : +- 4 Spreed - Tolerance - cm3/1000 strokes : 5.	.5
Pressure hPa Rated speed rpm rack travel mm		theck tolerance cm3/1000s. : 9.	.0

MO3

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 736 834

Injection pump

Pump designation : PES6P120A120RS7265 EP type number : 0 412 726 882

Governor

Governer design. : RQV350...1100PA964

: -12K

: 0 421 815 323 Governer no.

Cust. part No. : 3922471

Customer-spec. information Customer : CDC Motor : 6CTA-A Power KW : 186.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0 Tolerance bar : +- 0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter :

3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 4.00 : +- 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300 : + - 0.30

Tolerance Check

tolerance "NW : + 0.75

Start of delivery blocking

*NW after s.c.d. : 5.50 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.95 Tolerance mm : + 0.05

Bal minimakan.	
Del. quantity +	
cm3/1000 strokes : 211.0 +	rack travel mm : 12.40
+	Rated speed rpm : 1280
Tolerance	Tolerance 1/min : + 15
cm3/1000 strokes : +- 1.0 +	
	rack travel mm : 4.00
Check tolerance +	Rated speed rpm : 1405
cm3/1000s. : +- 4.0 +	Tolerance 1/min : +- 5
Spreed +	rack travel mm : 0.50
Tolerance +	Tolerance mm : +- 0.50
cm3/1000 strokes : 5.0	Rated speed rpm : 1500
+	
Check tolerance +	
cm3/1000s. : 9.0 +	
+	LOW IDLE
Del. quantity	
cm3/1000 strokes : 23.5	
Tolerance +	control lever
cm3/1000 strokes : +- 3.0 +	position degree : 70.0
Check tolerance	tolerance degree : +- 6.0
cm3/1000s. : + 5.0	
Spreed	Testing:
Tolerance	
cm3/1000 strokes : 8.0	Rated speed rpm : 350
Check tolerance +	rack travel mm : 6.80
cm3/1000s. : 12.0 +	Tolerance mm : +- 0.20
+	
+	Rated speed rpm : 275
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR +	CRT mm min. :> 8.30
+	
+	Rated speed rpm : 425
FULL LOAD DELIVERY AT FULL LOAD STOP	
+	TORQUE CONTROL
Rated speed rpm : 1100	
Rated speed rpm : 1100 Aneroid pressure	Rated speed rpm : 1100
Rated speed rpm : 1100 Aneroid pressure hPa : 1200	Rated speed rpm : 1100 rack travel mm : 13.95
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity	Rated speed rpm : 1100
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750 rack travel mm : 12.40
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750 rack travel mm : 12.40
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : +- 0.20
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : +- 0.20 ANEROID/ALTITUDE
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : + 0.20 Rated speed rpm : 13.50 Tolerance mm : + 0.10 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : + 0.20
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever position degree : 117.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : +- 0.20 ANEROID/ALTITUDE
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : + 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : + 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : + 0.10 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : + 0.20 ANEROID/ALTITUDE COMPENSATOR TEST
Rated speed rpm : 1100 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 211.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 CONTROL LEVER control lever position degree : 117.0	Rated speed rpm : 1100 rack travel mm : 13.95 Tolerance mm : +- 0.05 Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : +- 0.20 Rated speed rpm : 1200 rack travel mm : 13.50 Tolerance mm : +- 0.10 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : +- 0.20 ANEROID/ALTITUDE

Rated speed rpm Pressure hPa	: 1100 : 1200
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1100 : 8.90 : +- 0.20
Rated speed rpm	: 1100
Pressure hPa rack travel mm Tolerance mm	: 650 : 12.70 : + 0.20
Pressure hPa rack travel mm Tolerance mm	: 310 : 10.20 : + 0.20
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 290
Check speed 1/min Check	: > 80
speed 1/min	: < 300
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1200 : 750
cm3/1000 strokes	: 176.0
Interance	
Tolerance cm3/1000 strokes Check tolerance	: + 3.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 3.0 : + 6.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: +- 6.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm	: +- 6.0 : 8.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: + 6.0 : 8.0 : 12.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity	: + 6.0 : 8.0 : 12.0 : 1100

BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 12.40 : 1280 : + 15
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm	: 100 : 12.50 : + 0.50
Del. quantity cm3/1000 strokes Tolerance	: 200.0
cm3/1000 strokes Check tolerance	: + 20.0
cm3/1000s.	: + 25.0
LOW IDLE	
Del. quantity cm3/1000 strokes Tolerance	: 23.5
cm3/1000 strokes Check tolerance	:
cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: - 5.0
	: 8.0
cm3/1000s.	: 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.03.96 Test oil : ISO 4113

Combination No. : 0 402 736 895

Injection pump

Pump designation : PES6P12OA12ORS7353 EP type number : 0 412 726 924

Governor

Governer design. : RQV350...1100PA1176

: -1K

Governer no. : 0 421 815 496

Cust. part No. : 3930611

Customer-spec. information Customer : CDC Motor : 6CTA-A Power KW : 186.5

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 4.00
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : \leftarrow 0.75

Start of delivery blocking

*NW after s.o.d. : 5.50 Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.95 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes	: 211.0	
Tolerance cm3/1000 strokes	: +- 1.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100
Check tolerance cm3/1000s.	: +- 4.0	+ Aneroid pressure + hPa : 1200 + Del. quantity + cm3/1000 strokes : 211.0
Spreed Tolerance cm3/1000 strokes	: 5.0	Tolerance + cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s.	: 9.0	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0
Del. quantity cm3/1000 strokes Tolerance	: 23.5	Check tolerance cm3/1000s. : 9.0
cm3/1000 strokes Check tolerance cm3/1000s.	: + 3.0 : + 5.0	CONTROL LEVER
Spreed Tolerance cm3/1000 strokes		control lever position degree : 118.0
Check tolerance cm3/1000s.	: 12.0	tolerance degree : + 6.0 RATED SPEED
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	rack travel mm : 12.40 Rated speed rpm : 1280 Tolerance 1/min : +- 15
GUIDE SLEEVE TRAN	/EL	rack travel mm : 8.00 Rated speed rpm : 1345
Rated speed rpm guide sleeve		Tolerance 1/min : +- 5
travel mm Tolerance mm	: 2.28 : + 0.25	+ rack travel mm : 0.50 + Tolerance mm : +- 0.50 + Rated speed rpm : 1460
Rated speed rpm guide sleeve travel mm	: 1282 : 9.01	<u> </u>
Tolerance mm	: + 0.25	LOW IDLE
Rated speed rpm guide sleeve travel mm Tolerance mm	: 452 : 3.50 : +- 0.25	control lever position degree : 68.0 tolerance degree : + 6.0
Rated speed rpm guide sleeve	: 402	Testing:
travel mm Tolerance mm	: 2.91 : +- 0.25	Rated speed rpm : 350 rack travel mm : 6.70 Tolerance mm : +- 0.20
Rated speed rpm guide sleeve travel mm	: 1640 : 13.50	Rated speed rpm : 275
Tolerance mm	: +- 0.50	CRT mm min. :> 8.20

Rated speed rpm	: 425	†
TORQUE CONTROL		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 13.95	Aneroid pressure hPa: 1200 Rated speed rpm: 750 Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: 11.95	cm3/1000 strokes : 173.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 13.60 : +- 0.10	+ cm3/1000s. : + 6.0 + Spreed + Tolerance + cm3/1000 strokes : 8.0
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.30	Check tolerance cm3/1000s. : 12.0 Aneroid pressure
ANEROID/ALTITUDE COMPENSATOR TEST		+ hPa : - + Rated speed rpm : 1100 + Del. quantity + cm3/1000 strokes : 92.5 + Tolerance
SETTING	: 1100	+ cm3/1000 strokes : +- 1.0 + Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm Pressure hPa MEASUREMENT	: 1200	BREAKAWAY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 9.30	Rack travel in mm : 12.40 Rated speed rpm : 1280 Tolerance 1/min : + 15
Rated speed rpm Pressure hPa rack travel mm	: 650 : 13.00	STARTING FUEL DELIVERY Rated speed rpm : 100
Tolerance mm Pressure hPa rack travel mm Tolerance mm	: + 0.20 : 310 : 10.70 : + 0.20	rack travel mm : 11.80 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 185.0 Tolerance
START CUT-OUT		cm3/1000 strokes : +- 20.0 Check tolerance cm3/1000s. : +- 25.0
Rated speed rpm Rated speed rpm		‡ ‡
Check speed 1/min Check	: > 80	LOW IDLE Del. quantity
speed 1/min	: < 300	cm3/1000 strokes : 23.5 Tolerance cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 5.0

Spreed

Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. : 8.0

12.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 22.03.96 Test oil : ISO 4113 Combination No. : 0 402 736 910 Injection pump Pump designation : PES6P120A720RS7351 : 0 412 726 922 EP type number Governor Governer design. : RQV450...1100PA1291K : 0 421 815 526 Governer no. Cust. part No. : 3931948 Customer-spec. information Customer : CDC Motor : 6CTA-A Power KW : 224.0 TEST BENCH REQUIREMENTS Inlet line : 3.2 Test oil inlet temp. °C 40 Tolerance °C : +- 2.0 Overflow valve : 2 417 413 086 2.0 Inlet press. bar : Tolerance bar : +- 0.1 Test nozzle holde assembly : 1 688 901 103 Opening pressure

: 208.5 : +- 1.5

: 1 680 750 015

6.0

REMARKS	
(A) INJECTION PUM Set equal deliver per values	· · · · · · · · · · · · · · · · · · ·
BEGINNING OF DELI	VERY
Test pressure bar Tolerance bar	: 17.0 : + 1.0
Prestroke mm Tolerance mm Check	: 4.40 : + 0.05
tolerance mm	: + 0.10
Rack travel in mm Tolerance mm	: 10.50 : + 1.50
Firing order	: 1-5- 3- 6- : 4
Phasing	: 0-60-120-180-24 : -300
Tolerance Check	: 0.30
tolerance °NW	: ← 0.75
Start of delivery	blocking
°NW after s.o.d. Tolerance Check	: 7.00 : +- 0.50
tolerance °NW	: +- 0.75
Barrel no.	: 1
BASIC SETTING	
Rated speed rpm	: 1100
Rack travel in mm Tolerance mm	: 14.75 : + 0.05
Del. quantity cm3/1000 strokes	0.45.0

x inside diameter:

x length mm

3.0

: 600

Tolerance bar

Outside diameter :

Test lines

Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0	Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Del. quantity cm3/1000 strokes : 27.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Spreed	CONTROL LEVER control lever position degree : 116.0 tolerance degree : +- 6.0 RATED SPEED
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0	rack travel mm : 13.70 Rated speed rpm : 1165 Tolerance 1/min : + 15 rack travel mm : 7.80
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 450 guide sleeve travel mm : 1.23	Rated speed rpm : 1250 Tolerance 1/min : +- 5 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1375
Tolerance mm : + 0.20 Rated speed rpm : 1183 guide sleeve travel mm : 7.71 Tolerance mm : + 0.15	control lever position degree : 76.0 tolerance degree : + 6.0
Rated speed rpm : 870 guide sleeve travel mm : 4.59 Tolerance mm : + 0.25 Rated speed rpm : 1570	Testing: Rated speed rpm : 450 rack travel mm : 6.80 Tolerance mm : + 0.20
guide sleeve travel mm : 13.50 Tolerance mm : + 0.50 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 325 CRT mm min. :> 8.50 Rated speed rpm : 525
Rated speed rpm : 1100 Aneroid pressure hPa : -	TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 14.75

Tolerance mm	: +- 0.05	
Rated speed rpm	: 800	
rack travel mm Tolerance mm	: 13.80 : ← 0.10	
	; 500	
Rated speed rpm rack travel mm	: 12.70	
Tolerance mm	: + 0.20	
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure		
hPa Rated speed rpm	: – : 800	
Del. quantity		
cm3/1000 strokes	: 207.0	
Tolerance cm3/1000 strokes	: 3.0	
Check tolerance		
cm3/1000s. Spreed	: + 6.0	
Tolerance		
	: 8.0	
Check tolerance cm3/1000s.	: 12.0	
BREAKAWAY		
Rack travel in mm		
Rated speed rpm Tolerance 1/min	: 1165 : +- 15	
Total diffe Trimity	•	
STARTING FUEL DEL		
Rated speed rpm rack travel mm	: 100 : 11.80	
Tolerance mm	: +- 0.50	
Del. quantity	. 400.0	
cm3/1000 strokes Tolerance	: 180.0	
cm3/1000 strokes	: +- 20.0	
Check tolerance cm3/1000s.	: +- 25.0	
LOW IDLE		
Del. quantity		
cm3/1000 strokes	: 27.0	

Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 25.03.96 Test oil : ISO 4113

Combination No. : 0 402 776 838

Injection pump

Pump designation : PES6P120A720RS7382

EP type number : 0 412 726 943

Governor

Governer design. : RSV625...1100P0A547

: -14

Governer no. : 0 421 833 545

Cust. part No. : RE67358

Customer-spec. information Customer : DEERE

Motor : 6081 HZ001

Power KW : 214.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 079

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 : +- 0.30

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

Start of delivery mark

 $^{\circ}$ NW after s.o.d. : 9.50 Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1100 +	Tolerance cm3/1000 strokes : +- 1.0
Rack travel in mm: 11.45 Tolerance mm: + 0.05	Check tolerance cm3/1000S. : +- 4.0 Spreed Tolerance
Del. quantity cm3/1000 strokes : 196.0	cm3/1000 strokes : 5.0 Check tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000s. : 9.0
Check tolerance cm3/1000s. : +- 4.0	CONTROL LEVER
Spreed Tolerance cm3/1000 strokes : 5.0	<pre>control lever position degree : 97.0 tolerance degree : +- 4.0 RATED SPEED</pre>
Check tolerance cm3/1000s. : 9.0	rack travel mm : 10.40
Del. quantity + cm3/1000 strokes : 21.5 +	Rated speed rpm : 1175 Tolerance 1/min : +- 5
Tolerance + 3.0 + Check tolerance +	rack travel mm : 4.00 Rated speed rpm : 1235
cm3/1000s. : +- 5.0 +-	rack travel mm : 0.85 Tolerance mm : +- 0.55
Tolerance + cm3/1000 strokes : 8.0 + Check tolerance +	Rated speed rpm : 1350
cm3/1000s. : 12.0	Rated speed rpm : 1235
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	control lever
GUIDE SLEEVE POSITION Rated speed rpm : 800	position degree : 78.0 tolerance degree : +- 4.0
Rack travel in mm: 0.50	Setting point w/out bumper spring
Tolerance mm : + 0.20	Rated speed rpm : 625 rack travel mm : 4.50
governor spring pre-tension click setting x : 3.75	Testing: Rated speed rpm : 625
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.00 Tolerance mm : +- 0.10
Rated speed rpm : 1100	Rated speed rpm : 100
Aneroid pressure hPa : 2000 + Del. quantity +	CRT mm min. : > 19.00
cm3/1000 strokes : 196.0	TORQUE CONTROL

1100 Rated speed rpm 11,45 rack travel mm Tolerance mm : +- 0.05 700 Rated speed rpm 13.10 rack travel mm Tolerance mm : + 0.10ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm Pressure hPa 2000 **MEASUREMENT** Pressure hPa 500 Rated speed rpm 9.60 rack travel mm : +- 0.20 Tolerance mm 500 Rated speed rpm Pressure hPa 1350 rack travel mm 12.30 Tolerance mm : +- 0.20 Pressure hPa 630 10.50 rack travel mm Tolerance mm : +- 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 2000 hPa 700 Rated speed rpm Del. quantity cm3/1000 strokes : 262.0 Tolerance 3.0 cm3/1000 strokes : +--Check tolerance cm3/1000s. 6.0 : +-Aneroid pressure 700 Rated speed rpm Del. quantity cm3/1000 strokes : 136.5 Tolerance cm3/1000 strokes : +-2.0

4.0

BREAKAWAY 10.40 Rack travel in mm : 1175 Rated speed rpm : Tolerance 1/min STARTING FUEL DELIVERY Rated speed rom 100 20.50 rack travel mm Tolerance mm : +- 0.50 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : +- 20.0Check tolerance cm3/1000s. : +- 25.0 LOW IDLE Del. quantity cm3/1000 strokes : 21.5 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 : +-Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

End of test specification sheet

Check tolerance cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.03.96 Test oil : ISO 4113

Combination No. : 0 403 466 161

Injection pump

Pump designation : PES6MW100/120RS1240

EP type number : 0 413 406 239

Governor

Governer design. : RSV500...1100MW2A379

Governer no. : 0 420 085 262

Cust. part No. : 3926882

Customer—spec. information
Customer : CDC
Motor : 6 CT
Power KW : 161.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

_

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 : +- 0 30

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50 Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 15.00 Difference ° CS : 1.50

BASIC SETTING

Rated speed rpm : 1100	- Tolerance - cm3/1000 strokes : +- 1.0
Rack travel in mm: 12.25 Tolerance mm: + 0.05	- Check tolerance - cm3/1000S. : +- 4.0 - Spreed - Tolerance
Del. quantity cm3/1000 strokes : 144.5	- cm3/1000 strokes : 4.0 - Check tolerance
Tolerance cm3/1000 strokes : + 1.0	- cm3/1000s. : 7.5 - -
Check tolerance cm3/1000s. : +- 4.0	- CONTROL LEVER
Spreed Tolerance cm3/1000 strokes : 4.0	control lever position degree : 103.0 tolerance degree : +- 4.0
Check tolerance	RATED SPEED
cm3/1000s. : 7.5	rack travel mm : 11.20 Rated speed rpm : 1160 Tolerance 1/min : +- 5
cm3/1000 strokes : 21.5	rack travel mm : 5.30
cm3/1000 strokes : +- 2.0 +- Check tolerance +-	Rated speed rpm : 1230 Tolerance 1/min : + 5
cm3/1000s. : +- 4.5	rack travel mm : 1.00
Tolerance + cm3/1000 strokes : 3.5 + Check tolerance + cm3/1000 strokes : 3.5 + cm3/1000 strokes	Tolerance mm : +- 0.70 Rated speed rpm : 1375
cm3/1000s. : 5.5	rack travel mm : 5.30 Rated speed rpm : 1235
(B) SETTING OF INJECTION PUMP	
+	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 83.0
Rated speed rpm : 800	tolerance degree : +- 4.0
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Setting point w/out bumper spring
governor spring +	Rated speed rpm : 500 rack travel mm : 4.70
click setting x : 4.75	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 500 rack travel mm : 5.20 Tolerance mm : +- 0.10
Rated speed rpm : 1100 Aneroid pressure	Rated speed rpm : 100
hPa : 1200 + Del. quantity +	CRT mm min. : > 19.00
cm3/1000 strokes : 144.5	

TORQUE CONTROL Rated speed rpm 1100 12.25 rack travel mm : +- 0.05 Tolerance mm 750 Rated speed rpm 12,70 rack travel mm : **←** 0.10 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm Pressure hPa 1200 **MEASUREMENT** Pressure hPa 500 Rated speed rpm 10.70 rack travel mm Tolerance mm : +- 0.20 Rated speed rpm 500 Pressure hPa 790 11.90 rack travel mm Tolerance mm : + 0.20Pressure hPa 620 rack travel mm 11.30 Tolerance mm : +- 0.20 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1200 750 Rated speed rpm Del. quantity cm3/1000 strokes : 155.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed

6.0

9.0

hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 11.20 : 1160 : +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
End of test specif	fication sheet

Aneroid pressure

Tolerance

cm3/1000s.

cm3/1000 strokes : Check tolerance

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 22.03.96 Edition Test oil : ISO 4113 Combination No. : 9 400 030 733 Injection pump Pump designation : PES4A95D32D/3RS288D EP type number : 9 410 037 214 Governor Governer design. : : 9 420 034 712 Governer no. Cust. part No. : 3930149 Customer-spec. information Customer : CDC Motor : 4BT3.9 Power KW 78.0 TEST BENCH REQUIREMENTS Inlet line : 3.2 Test oil inlet temp. °C 40 Tolerance °C 2.0 : 1 417 413 047 Overflow valve Inlet press. bar : 2.0 : +- 0.1 Tolerance bar Test nozzle holde : 1 688 901 101 assembly Opening pressure 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 014

x inside diameter x length mm	: 2.0 : 600
REMARKS	
(A) INJECTION PUM	P SETTING VALUES
Set equal deliver per values	y quant.
BEGINNING OF DELIV	VERY
Test pressure bar Tolerance bar	: 17.0 : + 1.0
Prestroke mm Tolerance mm	: 2.45 : +- 0.05
Check tolerance mm	: +- 0.10
Rack travel in mm Tolerance mm	: 10.50 : + 1.50
Firing order	: 1-3-4-2
Phasing Tolerance Check	: 0-90-180-270 : +- 0.50
tolerance *NW	: +- 0.75
Start of delivery	blocking
°NW after s.o.d. Tolerance Check	: 7.50 : +- 0.50
tolerance *NW	: + 0.75
Barrel no.	: 1
BASIC SETTING	
Rated speed rpm	: 1200
Rack travel in mm Tolerance mm	: 12.55 : +- 0.05
Del. quantity	. 105 5

cm3/1000 strokes : 105.5

Outside diameter :

6.0

7.1000	
cm3/1000 strokes : + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : +- 3.0	control lever position degree : 103.0
Spreed Tolerance cm3/1000 strokes : 4.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 11.50 Rated speed rpm : 1260 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 20.5 Tolerance	rack travel mm : 5.00 Rated speed rpm : 1340
cm3/1000 strokes : + 2.0 + Check tolerance	Tolerance 1/min : +- 5
cm3/1000s. : +- 4.5 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1400
cm3/1000 strokes : 6.0	, , , , , , , , , , , , , , , , , , ,
Check tolerance cm3/1000s. : 8.0	rack travel mm : 5.00 Rated speed rpm : 1340
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 78.0
Rated speed rpm : 800	tolerance degree : +- 4.0
+	Setting point w/out bumper spring
	secting both wood pumper spring
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Rated speed rpm : 425 rack travel mm : 5.00
	Rated speed rpm : 425 rack travel mm : 5.00 Testing:
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50
governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1000	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 105.5	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 105.5 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00
Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 105.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50 Tolerance mm : +- 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 12.55
governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1200 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 105.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm : 425 rack travel mm : 5.00 Testing: Rated speed rpm : 425 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 12.55

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 1000 Pressure hPa

MEASUREMENT

Pressure hPa Rated speed rpm 500 rack travel mm 10.90 Tolerance mm : + - 0.10

500 Rated speed rpm

660 Pressure hPa 12.20 rack travel mm : +- 0.20 Tolerance mm

Pressure hPa 460 11.40 rack travel mm : + 0.20Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

500 Rated speed rpm

Del. quantity

80.5 cm3/1000 strokes :

Tolerance cm3/1000 strokes : +-

Check tolerance cm3/1000S. 3.0

1.0

BREAKAWAY

Rack travel in mm : 11.50 Rated speed rpm : 1260 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm 20.50 : +- 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance cm3/1000s.

: +- 15.0

LOW IDLE

Del. quantity cm3/1000 strokes : 20.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance

cm3/1000 strokes : 6.0

Check tolerance cm3/1000s.

8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 9 400 030 740

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. :

Governer no. : 9 420 034 719

Cust. part No. : 3929410

Customer—spec. information Customer : CDC Motor : 6BT

Power KW : 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : +- 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance "NW : +- 0.75

Start of delivery blocking

°NW after s.o.d. : 7.50Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 10.85
Tolerance mm : + 0.05

sterarice (INI)

Del. quantity cm3/1000 strokes	: 90.0	Check tolerance cm3/1000s. : 6.5
cm3/1000 strokes	: + 1.0	CONTROL LEVER
Check tolerance cm3/1000s.	: +- 3.0	control lever position degree : 103.0
Spreed Tolerance cm3/1000 strokes	: 4.0	RATED SPEED rack travel mm : 9.85
Check tolerance cm3/1000s.	; 6.5	Rated speed rpm : 1250 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes Tolerance	+	rack travel mm : 4.50 Rated speed rpm : 1305 Tolerance 1/min : +- 5
cm3/1000 strokes Check tolerance cm3/1000S. Spreed	: +- 2.0 : +- 4.5	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1400
Tolerance cm3/1000 strokes Check tolerance	: 6.0	
cm3/1000s.	: 8.0	LOW IDLE
(B) SETTING OF INWITH GOVERNOR	JECTION PUMP	control lever position degree : 86.0
		Setting point w/out bumper spring
GUIDE SLEEVE POSI	+	Rated speed rpm : 425 rack travel mm : 4.60
Rated speed rpm	+	Testing:
governor spring	: +- 0.20	Rated speed rpm : 425 rack travel mm : 5.10 Tolerance mm : +- 0.10
pre-tension click setting x	: 5.00	Rated speed rpm : 100
FULL LOAD DELIVER	Y AT FULL LOAD STOP	CRT mm min. : > 19.00
Rated speed rpm Aneroid pressure	: 1200	TORQUE CONTROL
hPa Del. quantity	: 900	Rated speed rpm : 1200 rack travel mm : 10.85
cm3/1000 strokes Tolerance	: 90.0	Tolerance mm : +- 0.05
cm3/1000 strokes Check tolerance	: ← 1.0	ANEROID/ALTITUDE
cm3/1000s. Spreed	: +- 3.0	COMPENSATOR TEST
Tolerance cm3/1000 strokes	: 4.0	SETTING

Rated speed rpm	:	800
Pressure hPa	:	900

MEASUREMENT

Pressure hPa	:	
Rated speed rpm	:	800
rack travel mm	:	8.70
Tolerance mm	: +	- 0.20

Rated	speed	rom	•	800
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Pressure hPa	:	450
rack travel mm	:	10.50
Tolerance mm	: +	- 0.20

Pressure hPa	:	275
rack travel mm	:	9.50
Tolerance mm	: +-	0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid	pressure
---------	----------

hPa	:	
Rated speed rpm	:	800
Del. quantity		
cm3/1000 strokes	:	65.5

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 3.0

BREAKAWAY

Rack travel in mm : 9.85 Rated speed rpm : 1250 Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm	:	100
rack travel mm	:	20.50
Tolerance mm	: +-	0.50
Del. quantity		

cm3/1000 strokes : 120.5

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. **:** +- 15.0

LOW IDLE

Del. quantity cm3/1000 strokes	:	18.5	
Tolerance cm3/1000 strokes	: +-	2.0	
Check tolerance			
cm3/1000s. Spreed	; +	4.5	
Tolerance cm3/1000 strokes	•	6.0	
Check tolerance	•		
cm3/1000s.	:	8.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.03.96 Test oil : ISO 4113

Combination No. : 0 401 848 830

Injection pump

Pump designation : PE8P110A320LS3865 EP type number : 0 411 818 728

Governor

Governer design. : RQV250...1000PA1286 Governer no. : 0 421 814 175

Cust. part No. :

Customer—spec. information Customer : DHI Motor : V2-8TC

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.00
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Tolerance : + 0.50 Check

LINEUR

tolerance °NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.00 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 142.0

Tolerance cm3/1000 strokes : + 1	.o. ‡		
	<u> </u>	GUIDE SLEEVE POSIT	ION
Check tolerance cm3/1000s. : +- 4	.0 ‡	Rated speed rpm :	1120
Spreed Tolerance cm3/1000 strokes : 6	.0	Rack travel in mm : Tolerance mm :	
Check tolerance cm3/1000s. : 10	.0	FULL LOAD DELIVERY	
Rated speed rpm : 250	+	Rated speed rpm : Aneroid pressure	1000
Rack travel in mm : 8. Tolerance mm : + 0.		hPa Del. quantity cm3/1000 strokes :	1/2 0
Del. quantity	I I	Tolerance	142.0
cm3/1000 strokes : 25 Tolerance	.0	cm3/1000 strokes : Check tolerance	+ 1.0
cm3/1000 strokes : + 3 Check tolerance	+	cm3/1000s. :	+- 4.0
Spreed	.0 +	Tolerance cm3/1000 strokes :	6.0
	.0 ‡	Check tolerance cm3/1000s. :	10.0
Check tolerance cm3/1000s. : 10	.0 —		
(B) SETTING OF INJECTION POWITH GOVERNOR	JMP T	control lever position degree :	
GUIDE SLEEVE TRAVEL	+	tolerance degree :	+- 4.0
Rated speed rpm : 250 guide sleeve travel mm : 1.3	31	control lever position degree : tolerance degree :	
Tolerance mm : + 0.2		RATED SPEED	
Rated speed rpm : 1058 guide sleeve	‡	rack travel mm : Rated speed rpm :	12.00 1045
travel mm : 8.5 Tolerance mm : + 0.5		Tolerance 1/min :	+ 5
Rated speed rpm : 666 guide sleeve	‡	rack travel mm : Rated speed rpm : Tolerance 1/min :	4.00 1155 ← 15
travel mm : 5.2		ioterance infiniti.	
Tolerance mm : + 0.2	25 +	rack travel mm : Tolerance mm :	0.50 +- 0.50
Rated speed rpm : 380 guide sleeve	‡	Rated speed rpm :	1300
travel mm : 3.2 Tolerance mm : + 0.2			
Rated speed rpm : 1300	†	LOW IDLE	
guide sleeve travel mm : 11.5 Tolerance mm : +- 0.5		control lever position degree :	71.0

tolerance degree	: +- 4.0
control lever	
position degree tolerance degree	: 16.0 : +- 4.0
Testing:	
Rated speed rpm	: 250
rack travel mm Tolerance mm	: 8.10 : + 0.10
Rated speed rpm	: 150
CRT mm min.	: > 9.50
Rated speed rpm	: 400
TORQUE CONTROL	
Rated speed rpm	: 1000
rack travel mm	
Tolerance mm	: 13.00 : +- 0.05
Rated speed rpm	: 650
rack travel mm	: 13.00
Tolerance mm	: +- 0.10
START CUT-OUT Rated speed rpm Rated speed rpm	: > 100 : < 190
Check	
speed 1/min	: > 80
Check	
speed 1/min	: < 210
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
nPa	
Rated speed rpm Del. quantity	: 650
cm3/1000 strokes	: 145.0
Tolerance	
cm3/1000 strokes	: 3.0
Check tolerance	
cm3/1000s.	: +- 6.0
BREAKAWAY	
Rack travel in mm	: 12.00
Rated speed rpm	: 1045

Tolerance 1/min	: +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 100 : 125.0
cm3/1000 strokes Check tolerance	: +- 20.0
cm3/1000s.	: +- 24.0
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 250 : 8.10 : +- 0.30
cm3/1000 strokes Tolerance	: 25.0
cm3/1000 strokes	:
Check tolerance cm3/1000s. Spreed Tolerance	: +- 6.0
cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.03.96 Test oil : ISO 4113

Combination No. : 0 402 646 968

Injection pump

Pump designation : PE6P12OA32ORS7248

: -10

EP type number : 0 412 626 900

Governor

Governer design. : RQV275...1150PA986

Governer no. : 0 421 813 920

Cust. part No. : 1248033/6

Customer—spec. information
Customer : DAF
Motor : RS 222 L
Power KW : 222.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : +- 0.1

Overflow quantity

min. l/h : 130 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 12.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.25

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 187.0

NO2

Tolerance cm3/1000 strokes	: +- 1.0	Rated speed rpm : 450 guide sleeve
Check tolerance cm3/1000s.	: +- 4.0	travel mm : 3.07 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes Check tolerance	: 5.0	Rated speed rpm : 1500 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
cm3/1000s.	: 9.0	GUIDE SLEEVE POSITION
Rated speed rpm	: 275	Rated speed rpm : 1325
Rack travel in m Tolerance mm Del. quantity cm3/1000 strokes	: +- 0.10	Rack travel in mm: 11.20 Tolerance mm: + 1.30
Tolerance cm3/1000 strokes	: +- 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000S. Spreed Tolerance	: +- 6.0	Rated speed rpm : 1000 Aneroid pressure hPa : -
cm3/1000 strokes Check tolerance		+ Del. quantity + cm3/1000 strokes : 187.0
cm3/1000s.	: 12.0	Tolerance + cm3/1000 strokes : + 1.0
(B) SETTING OF IN	NJECTION PUMP	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAN	/EL	+ Check tolerance + cm3/1000s. : 9.0
Rated speed rpm guide sleeve travel mm	: 275 : 1.45	+
Tolerance mm		CONTROL LEVER
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1207 : 8.25 : ← 0.25	control lever position degree : 119.0 tolerance degree : + 4.0 RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm	: 800 : 5.21 : +- 0.25	rack travel mm : 11.25 Rated speed rpm : 1207 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm Tolerance mm		rack travel mm : 4.00 Rated speed rpm : 1320 Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm Tolerance mm	: 385 : 2.52 : + 0.25	rack travel mm : 0.70 Tolerance mm : +- 0.70 Rated speed rpm : 1450

LOW IDLE

control lever position degree :

tolerance degree : + 4.0

Testing:

275 Rated speed rpm rack travel mm : 4.70

: +- 0.10 Tolerance mm

: 175 Rated speed rpm

: > 6.70 CRT mm min.

Rated speed rpm : 340

TORQUE CONTROL

1000 Rated speed rpm :

12.25 rack travel mm : : ← 0.05 Tolerance mm

Rated speed rpm

1150

rack travel mm

: 12.25

Tolerance mm

: + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600

: 1000 Pressure hPa rack travel mm : 12.25

: +- 0.05 Tolerance mm

MEASUREMENT

Tolerance mm

Pressure hPa

600 Rated speed rpm :

rack travel mm 9.40 : +- 0.10

Rated speed rpm : 600

420 Pressure hPa rack travel mm 11.65

: + - 0.05Tolerance mm

240 Pressure hPa

10.40 rack travel mm :

: +- 0.10 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa

Rated speed rpm : 600 Del. quantity

cm3/1000 strokes : 122.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 11.25 Rated speed rpm : 1207

Tolerance 1/min : +- 5

LOW IDLE

Rated speed rpm : 275 rack travel mm 5.40

Tolerance mm : +- 0.10

Del. quantity

cm3/1000 strokes : 16.0 Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance

: +-cm3/1000s.6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.03.96 Edition Test oil : ISO 4113

Combination No. : 0 402 648 791

Injection pump

Pump designation : PE8P120A320LS7875 EP type number : 0 412 628 881

Governor

Governer design. : RQV250...1150PA1287

Governer no. : 0 421 814 176

Cust. part No.

Customer-spec. information : DHI Customer : V2-8TC Motor Power KW : 265.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +-Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Tolerance l/h: +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 5.20 : +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 16.00 Tolerance mm : + 1.50

: 8-7-2-6-3 Firing order

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315

: +- 0.30 Tolerance

Check

tolerance 'NW : + - 0.50

Start of delivery mark

: +- 0.50 Tolerance

Check

tolerance °NW : + 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 13.40 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 210.0

N05

		+
Tolerance cm3/1000 strokes	: + 1.0	+
Check tolerance cm3/1000s.	: + 4.0	+
Spreed Tolerance cm3/1000 strokes	: 7.0	+ !
Check tolerance cm3/1000s.	: 10.0	+
Rated speed rpm	: 250	Ŧ
Rack travel in m Tolerance mm Del. quantity	5.60 : +- 0.30	
cm3/1000 strokes Tolerance	: 20.0	1
cm3/1000 strokes Check tolerance	: +- 3.0	$\frac{1}{1}$
cm3/1000s. Spreed	: +- 6.0	+
Tolerance cm3/1000 strokes	: 5.0	‡ ;
Check tolerance	: 8.0	1
cm3/1000s.	. 0.0	+ -
cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	JECTION PUMP	+ · · · · · · · · · · · · · · · · · · ·
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	+ + + + + + + + + + + + + + + + + + + +
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	JECTION PUMP	+ + + + + + + + + + + + + + + + + + + +
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	JECTION PUMP EL : 250 : 1.61	+ ,
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm	UECTION PUMP EL : 250 : 1.61 : +- 0.20	+ / + F + 1
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Guide sleeve travel mm Tolerance mm Rated speed rpm	JECTION PUMP EL : 250 : 1.61 : +- 0.20 : 1206 : 8.32	+ r + r + r + r
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	JECTION PUMP EL : 250 : 1.61 : +- 0.20 : 1206 : 8.32 : +- 0.15	+ F
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	JECTION PUMP EL : 250 : 1.61 : +- 0.20 : 1206 : 8.32 : +- 0.15 : 1168 : 7.78 : +- 0.25 : 640	+
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	JECTION PUMP EL : 250 : 1.61 : +- 0.20 : 1206 : 8.32 : +- 0.15 : 1168 : 7.78 : +- 0.25	+
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	JECTION PUMP EL : 250 : 1.61 : +- 0.20 : 1206 : 8.32 : +- 0.15 : 1168 : 7.78 : +- 0.25 : 640 : 4.91	+

Tolerance mm : +- 0.50 GUIDE SLEEVE POSITION 1270 Rated speed rpm : Rack travel in mm : 12.40 Tolerance mm : +- 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP 1150 Rated speed rpm : Aneroid pressure hPa Del. quantity 210.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +- 1.0Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 7.0 Check tolerance cm3/1000s. 10.0 CONTROL LEVER control lever position degree : 56.0 tolerance degree : +- 4.0 control lever : 120.0 position degree tolerance degree : +- 4.0 RATED SPEED 12,40 rack travel mm : Rated speed rpm : 1195 Tolerance 1/min : +-4.00 rack travel mm Rated speed rpm 1275 : +- 15 Tolerance 1/min rack travel mm 0.50 : + 0.50Tolerance mm : 1400 Rated speed rpm LOW IDLE

1

aanaaa lawaa		†		
control lever position degree tolerance degree	: 87.0 : + 4.0	‡	START CUT-OUT	
control lever	• 23.0	‡	Rated speed rpm : > 165 Rated speed rpm : < 190	
tolerance degree	: +- 4.0	1	Check speed 1/min : > 155	
Testing:		Ŧ	Check	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 5.60	† †	speed 1/min : < 210	
		Ŧ	Aneroid pressure	
Rated speed rpm		+	hPa : - Rated speed rpm : 650	
CRT mm min.		‡	Del. quantity	
Rated speed rpm	: 300	‡	cm3/1000 strokes : 229.0 Tolerance	
TORQUE CONTROL		+	cm3/1000 strokes : +- 3.0 Check tolerance	
Rated speed rpm	: 1150	‡	cm3/1000s. : +- 6.0	
rack travel mm Tolerance mm	: 13.40 : +- 0.05	<u> </u>	Aneroid pressure hPa : -	
		+	Rated speed rpm : 500 Del. quantity	
Rated speed rpm rack travel mm	: 13.40	Ŧ	cm3/1000 strokes : 119.0	
Tolerance mm	: +- 0.05	‡	Tolerance cm3/1000 strokes : +- 1.0	
ANEROID/ALTITUDE COMPENSATOR TEST		+	Check tolerance cm3/1000s. : +- 4.0	
		1	BREAKAWAY	
SETTING		+	UNERTO WATER	
Rated speed rpm		Ŧ	Rack travel in mm : 12.40	
Pressure hPa rack travel mm Tolerance mm	: 13.40	‡	Rated speed rpm : 1195 Tolerance 1/min : +- 5	
MEASUREMENT		‡		
Pressure hPa	: -	‡	STARTING FUEL DELIVERY	
Rated speed rpm rack travel mm	: 500 · 8.20	‡	Rated speed rpm : 100 Del. quantity	
Tolerance mm	: +- 0.20	+	cm3/1000 strokes : 195.0 Tolerance	
Rated speed rpm	: 500	<u> </u>	cm3/1000 strokes : +- 20.0 Check tolerance	
Pressure hPa rack travel mm	: 325 : 9.50	-	cm3/1000s. : +- 24.0	
Tolerance mm	: +- 0.20	‡		
Pressure hPa rack travel mm Tolerance mm	: 800 : 12.10 : + 0.05	‡	LOW IDLE	

Rated speed rpm rack travel mm	:	250 5.60
Tolerance mm	: +~	0.30
Del. quantity cm3/1000 strokes	:	20.0
Tolerance cm3/1000 strokes	٠ ٠-	. 3.0
Check tolerance	• '	
cm3/1000S. Spreed	: +-	6.0
Tolerance		
cm3/1000 strokes Check tolerance	:	5.0
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 21.03.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 676 831

Injection pump

Pump designation : PE6P12OA32O/3LS7895

EP type number : 0 412 626 955

Governor

Governer design. : RSV600...1050P0A642

: 0 421 833 556 Governer no.

Cust. part No. : 0270748402

Customer-spec. information Customer : MB-NFZ Motor : OM 441 LA : 285.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + - 0.1

Tolerance l/h: +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4.75 Tolerance mm : +- 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm : 20.50 Tolerance mm : + 0.50

: 6-3-5-2-4-Firing order

: 1

: 0-45-120-165-240 Phasing

: -285

: + - 0.30Tolerance

Check

tolerance *NW : +- 0.50

Start of delivery mark

: +- 0.10 Tolerance

Check

tolerance °NW : +- 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 14.20

Tolerance mm : +- 0.05

N₀9

Del. quantity cm3/1000 strokes : 251.0	Check tolerance cm3/1000s. : +- 4.0 Spreed
Tolerance cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : 6.0 Check tolerance
Check tolerance cm3/1000s. : +- 4.0	cm3/1000s. : 9.0
Spreed Tolerance cm3/1000 strokes : 6.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	position degree : 93.0 tolerance degree : +- 4.0
Rated speed rpm : 600	RATED SPEED
Rack travel in mm: 4.20 Tolerance mm: +- 0.30 Del. quantity cm3/1000 strokes: 17.0 Tolerance	rack travel mm : 13.20 Reted speed rpm : 1115 Tolerance 1/min : + 5
cm3/1000 strokes : +- 3.0 +- Check tolerance +-	LOW IDLE
cm3/1000s. : +- 6.0 +-	
Tolerance cm3/1000 strokes : 8.0 check tolerance cm3/1000s. : 12.0	<pre>control lever position degree : 77.0 tolerance degree : +- 4.0 Testing:</pre>
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 600 rack travel mm : 4.20 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION	Rated speed rpm : 100
Rated speed rpm : 800	CRT mm min. : > 19.50 SET IDLE AUXILIARY SPRING
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	rack travel mm : 2.00
governor spring pre-tension click setting x : 4.00	TORQUE CONTROL Rated speed rpm : 1075
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 14.20 Tolerance mm : +- 0.05
Rated speed rpm : 1075 Aneroid pressure hPa : 1200 Del. quantity	Rated speed rpm : 800 rack travel mm : 15.25 Tolerance mm : +- 0.10
cm3/1000 strokes : 251.0 Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1000 rack travel mm : 14.85 Tolerance mm : +- 0.05

End of test specification sheet

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 Rated speed rpm 800 Del. quantity

cm3/1000 strokes : 291.0

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000s. 6.0

BREAKAWAY

13.20 Rack travel in mm : Rated speed rpm Tolerance 1/min

STARTING FUEL DELIVERY

100 Rated speed rpm 15.75 rack travel mm 0.25 Tolerance mm Del. quantity cm3/1000 strokes 270.0 Tolerance

cm3/1000 strokes 10.0

Check tolerance

cm3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm 600 4.20 rack travel mm 0.30 Tolerance mm Del. quantity 17.0 cm3/1000 strokes

Tolerance cm3/1000 strokes 3.0 -

Check tolerance cm3/1000s. 6.0

Spreed Tolerance

8.0 cm3/1000 strokes :

Check tolerance

12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 22,03,96

Test oil

: ISO 4113

Combination No. : 0 402 946 017

Injection pump

Pump designation : PES6P120A720RS8039

EP type number : 0 412 926 026

Governor

Governer design. : RQV250...950PA1243

Governer no. : 0 421 814 162

Cust. part No. : 1374808

Customer-spec. information Customer : SCANIA

Motor

: DSC 11.79

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5

Tolerance bar : + 0.1

Overflow quantity

min. L/h : 115 Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

: 251.5 bar

: +- 1.5 Tolerance bar

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.15
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.50

Tolerance mm : +- 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery blocking

Tolerance : + - 0.50

Check

tolerance °NW : + - 0.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 11.90

Tolerance mm : +- 0.05

Del suputitu	Rated speed rpm : 1260
Del. quantity cm3/1000 strokes : 298.0	guide sleeve travel mm : 11.50
	Tolerance mm : +- 0.50
Tolerance	
cm3/1000 strokes : + 1.0 +	
	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : +- 9.0	Rated speed rpm : 1165
	Rated speed rpm : 1165
Spreed	Rack travel in mm: 10.90
Tolerance	Tolerance mm : +- 1.30
cm3/1000 strokes : 8.0 +	
Cheek to language	FILL LOAD DELTUEDY AT FILL LOAD STOD
Check tolerance + cm3/1000s. : 14.0 +	FULL LOAD DELIVERY AT FULL LOAD STOP
14.0	Rated speed rpm : 700
Rated speed rpm : 250	Aneroid pressure
_ +	hPa : 1500
Rack travel in mm: 5.60	Del. quantity
Tolerance mm : + 0.30 + Del. quantity	cm3/1000 strokes : 298.0 Tolerance
cm3/1000 strokes : 21.0	cm3/1000 strokes : +- 1.0
Tolerance +	Check tolerance
cm3/1000 strokes : +- 3.0 +	cm3/1000s. : +- 9.0
Check tolerance	Spreed
cm3/1000s. : +- 6.0	Tolerance cm3/1000 strokes : 8.0
Spreed + Tolerance +	cm3/1000 strokes : 8.0 Check tolerance
cm3/1000 strokes : 4.0	cm3/1/300s. : 14.0
Check tolerance	
cm3/1000s. : 8.0 +	
†	CONTROL I CUED
(B) SETTING OF INJECTION PUMP	CONTROL LEVER
WITH GOVERNOR	control lever
+	position degree : 55.0
	tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	annimal layen
Rated speed rpm : 250	control lever position degree : 119.0
guide sleeve	tolerance degree : + 4.0
travel mm : 1.33	
Tolerance mm : + 0.20 +	RATED SPEED
Datad anad ann 1009	nock travel mm a 10 00
Rated speed rpm : 1008	rack travel mm : 10.90 Rated speed rpm : 995
travel mm : 8.61	Tolerance 1/min : + 5
Tolerance mm : + 0.15	
<u> </u>	rack travel mm : 4.00
Rated speed rpm : 732	Rated speed rpm : 1115
guide steeve + travel mm : 6.35 +	Tolerance 1/min : + 15
Tolerance mm : $+$ 0.25 $+$	rack travel mm : 0.50
Tolerance mm : + 0.25	rack travel mm : 0.50 Tolerance mm : +- 0.50
Rated speed rpm : 470	
Rated speed rpm : 470 + guide sleeve +	Tolerance mm : +- 0.50
Rated speed rpm : 470 + guide sleeve + travel mm : 4.09 +	Tolerance mm : +- 0.50
Rated speed rpm : 470 + guide sleeve +	Tolerance mm : +- 0.50

aanimat tavaa		‡	Tolerance mm	: +- 0.05
control lever position degree tolerance degree		+	START CUT-OUT	. 400
control lever position degree		† †	Rated speed rpm Rated speed rpm	: > 100 : < 170
tolerance degree Testing:	: +- 4.0	‡	Check speed 1/min Check	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 5.60 : +- 0.10	+	speed 1/min FUEL DELIVERY CH/	
Rated speed rpm		. ‡	Aneroid pressure	III/IOTENED/100
CRT mm min.	: > 8.10	+	hPa Rated speed rpm	: 1500 : 950
Rated speed rpm	: 300	Ī	Del. quantity cm3/1000 strokes Tolerance	: 282.0
TORQUE CONTROL		<u> </u>	cm3/1000 strokes Check tolerance cm3/1000s.	: +- 4.0 : +- 9.0
Rated speed rpm rack travel mm Tolerance mm	: 700 : 11.90 : + 0.05	+	Aneroid pressure	; -
Rated speed rpm rack travel mm Tolerance mm	: 11.90	† † † +	Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	
ANEROID/ALTITUDE COMPENSATOR TEST		+	cm3/1000 strokes Check tolerance cm3/1000s.	
SETTING		+	BREAKAWAY	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 11.90 : + 0.05	† † †	Rack travel in mm Rated speed rpm Tolerance 1/min	: 995
MEASUREMENT		+	STARTING FUEL DEL	IVERY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.20 : + 0.20	‡	Rated speed rpm rack travel mm Tolerance mm	: 100 : 20.50 : + 0.50
Rated speed rpm	: 500	Ī	Del. quantity cm3/1000 strokes Tolerance	: 225.0
Pressure hPa rack travel mm Tolerance mm	: 350 : 10.30 : + 0.15	+	cm3/1000 strokes Check tolerance cm3/1000s.	: +- 20.0 : +- 24.0
Pressure hPa rack travel mm	: 600 : 11.40	Ŧ		

N14

LOW IDLE

Rated speed rpm 250 rack travel mm 5.60 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 4.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.03.96 Test oil : ISO 4113

Combination No. : 0 402 996 002

Injection pump

Pump designation : PE6P12OA72OLS8032 EP type number : 0 412 926 023

Governor

Governer design. : RE30

Governer no. : 0 421 890 025

Cust. part No. : 1364497

Customer—spec. information Customer : SCANIA Motor : DSC1201

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Tolerance l/h: \leftarrow 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.85

Prestroke mm : 3.85
Tolerance mm : + 0.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Rack travel in mm : 10.50
Tolerance mm : + 1.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

. /.

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: + 0.50

Start of delivery blocking

*NW after s.o.d. : 180.00 Tolerance : +- 0.50

Check tolerance *NW : +- 0.75 Barrel no. 1 (B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 VTESTING & SETTING RACK TRAVEL SENSOR POSITION Engine speed min-1: 0 Setting point (P, R and H pump) Uact V 3.100 CRT mm 13.00 Tolerance mm : +/- 0.05 Check tolerance mm : +/- 0.10 Check value (P, R and H pump) 1.700 Uact V 6.15 CRT mm : +/- 0.25 Tolerance mm Check : +/- 0.30tolerance mm Setting point (amua M) 3.100 Uact V 12.50 CRT mm : +/- 0.05 Tolerance mm Check : +/- 0.10 tolerance mm Check value

and control rod in stop position.

0.75 CRT mm Tolerance mm : +/- 0.25

Check

: +/- 0.35 tolerance mm

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps)

Test with control rod in stop position

Engine speed min-1: Amplitude V : 1.4 Tolerance V : +/- 0.6 Check

tolerance V : +/- 1.20

Engine speed min-1:

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

700 Rated speed rpm 3,400 Uact V

Del. quantity

cm3/1000 strokes : 372.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 11.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 14.0

FUEL DELIVERY CHARACTERISTICS

950 Rated speed rpm Uact V 3,400

Del. quantity

cm3/1000 strokes : 327.0

Tolerance

cm3/1000 strokes : +- 4.0

Check tolerance

cm3/1000s.: + 10.0

Stop position

Tolerance mm

tolerance mm

(amuq M)

Uact V

CRT mm

Check

: Value with Uact V

deenergised adjusting magnet

1.700

5.50

: +/- 0.25

: +/- 0.30

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 26.03.96

: ISO 4113

Combination No. : 0 403 446 301

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RQV300...1300MW50

: -22

Governer no.

: 0 420 083 268

Cust. part No. : 0220745102

Customer-spec. information Customer : MB-NFZ : 0M366LA Motor

Power KW

: 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar

Test lines

: 1 680 750 089

Outside diameter :

x inside diameter:

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0

Tolerance bar : + 1.0

Prestroke mm 3.65

Tolerance mm : + - 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

: +- 0.50 Tolerance

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 14.45

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 113.0

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance

cm3/1000s.

: +-3.0

Spreed

N19

Tolerance cm3/1000 strokes : 3.5	Tolerance mm : + 2.70
Check tolerance cm3/1000s. : 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 300	+ Rated speed rpm : 1300 + Aneroid pressure + hPa : 1000
Rack travel in mm : 7.30 Tolerance mm : +- 0.20 Del. quantity	Del. quantity cm3/1000 strokes : 113.0 Tolerance
cm3/1000 strokes : 12.0 Tolerance	+ cm3/1000 strokes : +- 1.0 + Check tolerance
cm3/1000 strokes : +- 2.0 Check tolerance	+ cm3/1000s. : +- 3.0 + Spreed
cm3/1000s. ; +- 4.5 Spreed	Tolerance : 3.5
Tolerance cm3/1000 strokes : 3.5	+ Check tolerance + cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 5.5	Ť
(B) SETTING OF INJECTION PUMP	CONTROL LEVER
WITH GOVERNOR	control lever position degree : 114.0 tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 300 guide sleeve	+ rack travel mm : 13.40
travel mm : 1.37 Tolerance mm : + 0.20	+ Rated speed rpm : 1345 + Tolerance 1/min : +- 5
Rated speed rpm : 1355 guide sleeve travel mm : 8.66 Tolerance mm : + 0.15	rack travel mm : 4.00 Rated speed rpm : 1480 Tolerance 1/min : +- 15
Rated speed rpm : 885 guide steeve	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm : 5.01 Tolerance mm : +- 0.25	+
Rated speed rpm : 500 guide sleeve	LOW IDLE
guide sleeve travel mm : 2.92 Tolerance mm : + 0.25	control lever position degree : 80.0
Rated speed rpm : 1610 guide sleeve	tolerance degree : + 4.0
guide sleeve travel mm : 11.50 Tolerance mm : + 0.50	Testing:
GUIDE SLEEVE POSITION	Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10
Rated speed rpm : 1450	Rated speed rpm : 200
	+
Rack travel in mm: 9.00	+ CRT mm min. : > 8.50

N20

		+ Tolerance
TORQUE CONTROL		
TORGOE CONTROL		+ cm3/1000s. : +- 4.0
Rated speed rpm	: 1300	Spreed
rack travel mm		+ Tolerance
Tolerance mm	: +- 0. 05	+ cm3/1000 strokes : 5.0
Dated around com	: 750	+ Check tolerance + cm3/1000s. : 7.0
Rated speed rpm rack travel mm	: 14.45	
Tolerance mm	: +- 0.10	Aneroid pressure
, o 10, a, 100 mm		+ hPa : -
		Rated speed rpm : 500
ANEROID/ALTITUDE		+ Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 42.0 + Tolerance
		- cm3/1000 strokes : +- 1.0
SETTING		+ Check tolerance
		+ cm3/1000s. : + 3.0
Rated speed rpm		+
Pressure hPa		PREALANA
rack travel mm Tolerance mm		BREAKAWAY
roterance in	; +- 0.05	I
MEASUREMENT		Rack travel in mm: 13.40
		+ Rated speed rpm : 1345
Pressure hPa	: -	+ Tolerance 1/min : +- 5
Rated speed rpm		†
rack travel mm Tolerance mm		†
rocerance imp	0.05	STARTING FUEL DELIVERY
Rated speed rpm	: 500	-
4-2		Rated speed rpm : 100
Pressure hPa	: 500	Del. quantity
rack travel mm	: 13.80	+ cm3/1000 strokes : 105.0
Tolerance mm	: +- 0.10	+ Tolerance + cm3/1000 strokes : +- 5.0
Pressure hPa	: 200	Check tolerance
rack travel mm	: 11.20	+ cm3/1000s. : +- 8.0
Tolerance mm	: +- 0.10	+
		+
START CUT-OUT		
31ART (01-001		LOW IDLE
Rated speed rpm	: > 100	1000 1022
Rated speed rpm	: < 220	Rated speed rpm : 300
		+ rack travel mm : 7.30
Check	. > 00	Tolerance mm : + 0.20
speed 1/min Check	: > 80	+ Del. quantity + cm3/1000 strokes : 12.0
speed 1/min	: < 240	Tolerance
Open crimin		+ cm3/1000 strokes : +- 2.0
FUEL DELIVERY CHA	ARACTERISTICS	+ cm3/1000s. : +- 4.5
A		+ Spreed
Aneroid pressure hPa	: 1000	+ Tolerance + cm3/1000 strokes : 3.5
Rated speed rpm	: 750	Check tolerance
Del. quantity		+ cm3/1000s. : 5.5
cm3/1000 strokes	: 109.0	+

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.03.96 Test oil : ISO 4113

Combination No. : 0 403 476 145

Injection pump

Pump designation : PES6MW100/320RS1244

EP type number : 0 413 406 244

Governor

Governer design. : RSV500...1100MW1A399

Governer no. : 0 420 085 289

Cust. part No. :

Customer-spec. information
Customer : SISU
Motor : 634 DWE
Power KW : 154.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Start of delivery blocking

Barrel no. : '

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 12.10 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Daniel de la constant			
Spreed Tolerance	‡	CONTROL LEVER	
cm3/1000 strokes : 4.0	‡	control lever	
Check tolerance		position degree	: 112.0
cm3/1000s. : 7.5	+	tolerance degree	
Rated speed rpm : 500	<u> </u>	RATED SPEED	
Rack travel in mm: 3.30	+	rack travel mm	: 11.10
Tolerance mm : + 0.20	+	Rated speed rpm	
Del. quantity cm3/1000 strokes : 11.0	1	Tolerance 1/min	: +- 5
Tolerance	+	rack travel mm	: 4.00
cm3/1000 strokes : +- 2.0	+	Rated speed rpm	
Check tolerance cm3/1000s. : +- 4.5	Ī	Tolerance 1/min	: + 15
Spreed	1	rack travel mm	: 1.00
Tolerance	+	Tolerance mm	: +- 0.70
cm3/1000 strokes : 3.5 Check tolerance	İ	Rated speed rpm	: 1300
cm3/1000s. : 5.5	Ţ	rack travel mm	: 4.00
	+	Rated speed rpm	
(B) SETTING OF INJECTION PUMP	, I		
WITH GOVERNOR	+		·
	+	LOW IDLE	
	<u> </u>		
GUIDE SLEEVE POSITION	Ţ	control lever	
	+	position degree	
Rated speed rpm : 800	<u> </u>	tolerance degree	: +- 4.0
Rack travel in mm : 0.65	1	Setting point w/o	ut bumper spring
Tolerance mm : + 0.35	+		
governor spring	İ	Rated speed rpm rack travel mm	
pre-tension	+	TACK CIQVCC IIIII	. 2.00
click setting $x : 5.50$	+	Testing:	
	‡	Rated speed rpm	: 500
FULL LOAD DELIVERY AT FULL LO	AD STOP	rack travel mm	: 3.30
0.1 1 1	+	Tolerance mm	: +- 0.10
Rated speed rpm : 1075 Aneroid pressure	1	rack travel mm	: 2.00
hPa : 1200	+	Rated speed rpm	: 540
Del. quantity	+	Tolerance 1/min	: +- 30
cm3/1000 strokes : 140.0 Tolerance	Ī		
cm3/1000 strokes : + 1.0	1	TORQUE CONTROL	
Check tolerance	+	8 4 4 2 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4	4075
cm3/1000S. : +- 4.0 Spreed	<u> </u>	Rated speed rpm rack travel mm	: 1075 : 12.10
Tolerance	Ţ	Tolerance mm	: + 0.05
cm3/1000 strokes : 4.0	+		
Check tolerance cm3/1000s. : 7.5	†	Rated speed rpm rack travel mm	: 600 : 12.10
cm3/1000S. : 7.5	Į	Tolerance mm	: +- 0.10
	+		

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm 1000 Pressure hPa 12,10 rack travel mm Tolerance mm : +- 0.10

MEASUREMENT

Pressure hPa 500 Rated speed rpm 9.50 rack travel mm : + - 0.10Tolerance mm

500 Rated speed rpm

750 Pressure hPa 11.60 rack travel mm : +- 0.15 Tolerance mm

Pressure hPa 400 10.25 rack travel mm : + - 0.05Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 1200 Rated speed rpm 600 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance

9.0

Aneroid pressure

cm3/1000s.

hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 94.5 Tolerance 1.0 cm3/1000 strokes Check tolerance 3.0 cm3/1000s.

BREAKAWAY

Rack travel in mm : 11.10 Rated speed rpm 1130 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm Del. quantity cm3/1000 strokes : 130.0 Tolerance 5.0 cm3/1000 strokes : +-Check tolerance 8.0 cm3/1000s.

100

LOW IDLE

Rated speed rpm 500 rack travel mm 3.30 Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance 5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.03.96 Test oil : ISO 4113

Combination No. : 9 400 083 422

Injection pump

Pump designation : PES3A80D320/3RS1264

EP type number : 9 400 083 053

Governor

Governer design. : RSV350...1200A2C627R

Governer no. : 9 420 083 288

Cust. part No. :

Customer-spec. information

Customer : MWM
Motor : D225-3

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1- 2- 3

Phasing : 0-120-240

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : +- 1.50
Difference ° CS : 4.50

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 9.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 51.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

Tolerance cm3/1000 strokes : 2.5	t control lever
Check tolerance cm3/1000s, : 4.0	position degree : 50.0 tolerance degree : + 4.0
Rated speed rpm : 350	RATED SPEED
	rack travel mm : 8.40
Rack travel in mm : 7.00 Tolerance mm : +- 0.10 Del. quantity	Rated speed rpm : 1245 Tolerance 1/min : +- 5
cm3/1000 strokes : 9.0	F rack travel mm : 4.00
Tolerance cm3/1000 strokes : +- 1.5	+ Rated speed rpm : 1300 + Tolerance 1/min : +- 15
Check tolerance	+
cm3/1000s. : +- 3.5 Spreed	rack travel mm : 0.85 Tolerance mm : + 0.55
Tolerance cm3/1000 strokes : 4.0	+ Rated speed rpm : 1400
Check tolerance	†
cm3/1000s. : 6.0	LOW IDLE
(B) SETTING OF INJECTION PUMP	†
WITH GOVERNOR	+ control lever
	+ position degree : 20.0 + tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 350 + rack travel mm : 5.50
Rack travel in mm : 0.65 Tolerance mm : +- 0.35	Testing:
governor spring	† Rated speed rpm : 350
pre-tension	+ rack travel mm : 6.00
click setting x : 4.30	Tolerance mm : + 0.10
	T rack travel mm : 2.00
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 520
Datad aread area a 1200	Tolerance 1/min : +- 30
Rated speed rpm : 1200 Aneroid pressure	Rated speed rpm : 100
hPa : -	+ + CRT mm min. :> 19.00
Del. quantity cm3/1000 strokes : 51.0	+ CRI (MI) (1) 7(1)
Tolerance	
cm3/1000 strokes : +- 0.5 Check tolerance	TORQUE CONTROL
cm3/1000s. : +- 2.0	Rated speed rpm : 1200
Spreed	+ rack travel mm : 9.45
Tolerance cm3/1000 strokes : 2.5	Tolerance mm : +- 0.05
Check tolerance	T Rated speed rpm : 500
cm3/1000s. : 4.0	rack travel mm : 9.50 Tolerance mm : +- 0.10
	Tolerance mm : +- 0.10
	† Rated speed rpm : 400
CONTROL LEVER	rack travel mm : 10.90

Tolerance mm : + 0.30

BREAKAWAY

Rack travel in mm : 8.40
Rated speed rpm : 1245
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm 350 7.00 rack travel mm : **←** 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 9.0 Tolerance cm3/1000 strokes : +- 1.5 Check tolerance cm3/1000s. 3.5 Spreed Tolerance 4.0 cm3/1000 strokes : Check tolerance cm3/1000s. 6.0